GOA Trawl Bycatch Management

Discussion Paper

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Contents

1 Introduction

The Council identified specific areas at its June 2013 meeting that it wishes to discuss in more detail during its October meeting. Those issues are grouped into four broad categories and presented in this paper. A review of current literature on the effects of catch share programs is presented in Section 2. The list of references is presented in Section 7. Given the diverse nature of the articles and the opinions of the authors, drawing specific conclusions on how the range of programs presented to the Council would impact stakeholders is outside the scope of the discussion. Section 3 is a summary of the eight proposals that stakeholders presented to the Council in June. The basic elements of those proposals and any related legal or regulatory issues are presented in a summary table (Appendix, Section 8). Section 4 contains additional discussion of the relationship between State and Federal fisheries that occur in adjacent waters. The focus of this section has two parts. The first is in regard to accounting for catch to ensure that ABC is not exceeded and OY is not excessively reduced. Second, is a brief discussion of the benefits and detriments of developing a federal catch share program that could lead to a substantial percentage of the total available harvest being taken in an adjacent State water fishery. Finally, Section 5 provides a discussion of early considerations and the Council's role in the development of a Community Fishing Association. This discussion is based on the experiences of other Councils in developing catch share programs, the CFA proposal presented to the Council (Proposal #2), MSA guidance, and advice from NOAA General Counsel.

2 Review of Recent Literature on Quota-Based Management

The Council requested a review of recently published peer-reviewed literature on topics that are typically associated with allocative quota-based fishery management programs.[1] Quota-based management is often covered in the fields of biology, anthropology, and economics. The references cited here include case studies, ethnographies, economic models, legal reviews, and meta-analyses. The analytical studies focus not only on managed fisheries in Alaska, but also in British Columbia, the Gulf of Mexico, the Mid-Atlantic U.S., New England, Australia, New Zealand, the Mediterranean, Iceland, Scandinavia, the United Kingdom, and continental Europe. While the case study programs vary by target species, fleet structure, gear type, and socio-political context, this review attempts to draw out only the experiences and assertions that are most relatable to the Gulf of Alaska groundfish trawl fishery.

This brief review does not attempt to summarize all views on the many facets of quota-based management that have been discussed and debated for decades. Rather, the following is limited to the aspects covered in literature that has been published since the Council last developed a management strategy with quota elements. Recent literature addresses the following themes: effects on fishery capacity, productivity and efficiency; the dynamics of quota markets; social impacts and equitability; effectiveness in achieving ecological sustainability objectives; program management and adaptability; and stakeholder perceptions of quota-based management. While all aspects of fisheries management are interrelated, this paper reviews new discussion on those themes in four parts: (1) economics outcomes; (2) social considerations; (3) ecological impacts; and (4) program design.

[1] The Council provided a specific list of recent articles to consider, and others were added at staff discretion. The original list can be found at: http://www.seaweb.org/science/MSRnewsletters/MSR_FA_FisheriesManagement_4-2013.php

Effect of quota-based management on economic outcomes

Management programs that allocate harvest privileges to fishing entities – better thought of as "user rights" than "property rights" – are linked in conventional wisdom to reduced fishing capacity. While many catch share-type programs have coincided with a decline in the size of the harvest fleet, in some cases by design, harvest capacity reduction cannot be attributed *solely* to the implementation of quota management (Van Hoof 2013). Allocative regimes are often introduced in conjunction with new input and output controls, such as engine and gear restrictions, or revised TAC levels. These measures also affect participants' profitability and desire to continue in the fishery. In any case, the amount of fleet consolidation depends greatly on participants' individual opportunity costs, or how else they might benefit from applying their labor and capital outside of the fishery (Olson 2011). If opportunity costs are low (i.e., if other investments or opportunities for employment are not sufficiently more attractive), less consolidation will occur. This calculus has much to do with factors that are not influenced by the change in fishery management. To some degree, fleet consolidation can, and has, been managed by restricting the tradability of quota (Waldo and Paulrud 2013; Hartley and Fina 2001).

Authors writing on the subject, including strong proponents of catch shares, tend to agree that quota-based management often leads to excess capacity in the shoreside processing sector (Grimm et al. 2012; Criddle 2012; Hannesson 2013). When the span of the season for deliveries lengthens, fewer fish will be available to process at any given time. Processors will compete with each other to fill lines in which they have already invested by offering harvesters higher ex-vessel prices (Melnychuk et al. 2012); this competition could continue up to the point where processors are covering only their variable production costs. In an unrestricted market, these impacts are more likely to impact processors in remote locations. As a result, the processing sector is likely to receive a smaller proportion of any increase in the total economic value of the fishery resulting from quota management.

In some cases, quota-based management has been linked to higher total production (catch) in the fishery. Longer fishing seasons may provide an opportunity to distribute effort to previously underutilized stocks (Pinkerton 2013). Holzer, Lipton and Francois (2013) discuss the potential for quota leasing to increase total productivity. Setting aside the social and distributional effects of quota lease markets, Holzer et al. note that fishermen who are willing pay to lease new or additional quota are likely higher-skilled, or at least more productive. Shifting effort to the most effective participants should expand the possible production frontier, which is a positive outcome as long as an appropriate TAC level is in place: "leasing, even if informal, is unambiguously beneficial for the profitability of the fishery" (p.129). However, another paper cautioned that greater productivity under transferable quota programs is partially explained by improved reporting, and the fact that many of these programs were implemented in previously depleted fisheries (Nowlis and Van Benthem 2012).

Studies of quota-based management often discuss efficiency. Even when "right-sizing" the fishery's harvest or processing capacity is not the program's central motivation, both proponents and skeptics of quota management hold up increased efficiency and profitability as a benefit against which to balance economic and non-economic costs. Hanoteau (2012) exemplifies this conception of efficiency as a bargaining piece by proposing that increasing the overall value of the fishery – via efficiency – might make the risk of potential bycatch closures more palatable to stakeholders. However, Emery et al. (2013) caution that, when a target species is scarce or hard to find, effort may remain inefficiently high as vessels stay on the fishing grounds longer, incurring greater variable costs (fuel, ice, etc.) in order to generate the revenue needed to cover fixed costs or to make debt service payments on purchased quota.

Recent discussion of efficiency in quota regimes largely focuses on how managers measure the often celebrated efficiency gains after program implementation, the degree to which quota management is

responsible for the supposed gains, and how those benefits are distributed amongst a heterogeneous set of stakeholders. Walden et al. (2012) cites earlier work (Brandt 2003 and 2007) underlining the importance of selecting an appropriate unbiased baseline period for assessing a program's impact on efficiency, capacity, and productivity. Major policy change takes years of public process, and fishery participants almost always display strategic behavior in the years leading up to management action. Participation often increases during the months or years of allocation debates, as the opportunity cost of inactivity becomes greater. As a result, the immediate pre-implementation data may reflect artificially high harvest capacity, and suppressed overall efficiency.

In setting the stage for future programmatic performance reviews, managers should also work to collect appropriately baselined data at the vessel level. While total fishery capacity may decline in aggregate, vessels will likely experience a range of outcomes in terms of their individual benefits[2] and cost structures after implementation (Walden et al. 2012; Grainger and Costello 2012). Individual vessels, or other entities receiving initial quota allocations, will vary in the amount of additional quota that they need to purchase or lease in order to maintain a viable operation. As a result, some vessels may actually increase their effort in the post-implementation years – to the detriment of their individual harvest efficiency – in order to fund additional quota purchase or lease fees. Some vessels may chase extra revenue by focusing effort in higher catch per unit of effort (CPUE) fishing grounds, such as areas closer to port or with more aggregated target biomass (Walden et al. 2012; Emery et al. 2012). The likely diversity of vessel-level responses to a quota market suggests that *fleet-wide* capacity and efficiency may be incomplete, potentially misleading, metrics.

Quota allocation and quota markets remain a central topic in rights-based management research. These articles further explore how quota transfer and lease markets operate, and which type of stakeholder is likely to benefit. Several authors refine the notion of economic benefits in quota regimes, carefully distinguishing benefits at the fishery-wide level from benefits that accrue to an individual. In the long run, the total value of the quota pool will equal the "resource rent," or the scarcity value of the entire fish stock (Hannesson 2013). Said another way, a resource rent is the present value of all anticipated future profits from fishing, or society's opportunity cost of prosecuting the fishery (Hanoteau 2012; Nielsen, Flaaten and Waldo 2012). On the other hand, in a heterogeneous fleet fishing under limited access management, some individuals are already earning more rents than the average participant, even if the fishery is at capacity and total resource rents are fully dissipated. These vessel-level rents, known as "inframarginal rents," are being earned by fishermen with greater skill[3], or with lower opportunity costs (Arnason 2012; Grainger and Costello 2012; Nielsen, Flaaten and Waldo 2012). The policy discussion about economic rents under quota regimes often focuses on the fishery-wide resource rent, and how any increase in the total profitability of the fishery is capitalized into the total asset value of the quota pool (Grainger and Costello 2012; Hannesson 2013). When managers consider that inframarginal rents already exist in the fishery, the emerging policy question is how to initially allocate quota in a manner that compensates participants whose ability to earn inframarginal rents has been expropriated through free allocation of quota, where a quota unit is a defined share of the total resource rent (Arnason 2012; Grainger and Costello 2012).[4]

[2] See discussion of "inframarginal rents," below.
[3] Inframarginal rents are sometimes called "skill rents."
[4] Two of the cited papers focus on developing strategies to estimate the economic rents described here. Calculating a rent requires data on fishing costs, which are often unavailable for policy analyses. Nielsen, Flaaten and Waldo (2012) estimate rents using a standardized opportunity cost for labor and capital, drawing on industry-level data from other parts of the economy. Grainger and Costello (2012) assume a "functional form" for per unit harvest costs, meaning that the authors make some generalizations about the relationship between inputs and revenues in a fishery.

Initial quota allocations are often a point of contention in designing a new program, and much can be said about how a Council might approach this task either as a "tool" to further community and social goals, or to protect existing investments. Without summarizing that entire field of literature, this review found that recent articles mainly tracked the history of allocation experiences that disadvantaged smaller operators, new entrants (and future generations), and non-ownership stakeholders. Olson (2011) cites earlier work (Dwyer and Minnegal 2006) noting that quota allocation based on historical catch has often "penalized" participants who had a diversified fishing operation; these stakeholders are most often the smaller operators. While there is diversity in the size of GOA trawl operations, the most at-risk segment of the fleet likely has more to do with the length of time participating in the fishery; this would, of course, be zero for all future participants. New entrants who purchase quota from free allocation recipients incur not only debt, but also the risks inherent in fishing investments – future reductions in TAC levels, falling product value, uncompensated shifts of TAC to another gear or business sector, and others (Pinkerton 2013; Olson 2011). While risks are not unusual in the greater business world, here a system where the entire quota pool is freely allocated upon implementation would create two classes: those who pursue a risky business with the backing of a valuable tradable asset, and those who pay to assume risk. The latter group may well have different behavior incentives when fishing under the pressure of quota purchase loan payments. Participants without an initial allocation can be expected to borrow money to buy into the fishery as long as they expect their purchased or leased quota to earn more than a normal market return on investment.[5] Carothers and Chambers (2012) note, objectively, that quota allocations are most often awarded to entities that invested in the fishery financially, but not to those who invested labor.[6] Finally, several authors note that allocating harvest quota can lead to a "transitional gains trap," where the value of the quota is a windfall conferred upon the initial recipients, and paid for by future generations who must purchase the privilege to harvest fish from these recipients (Olson 2011; Cardwell and Gear 2013).[7]

With no active participation requirement, allowing initial allocation recipients to hold and lease quota permanently transfers economic rents away from active fishermen. In general, and aside from previous comments about increased total fishery productivity when quota leasing is permitted, creating a class of lessors decouples quota holders from at-sea operation over time, "propagat[ing] a shift in incentives towards covering lease debt and making a profit at any cost" (Emery et al. 2012, p.124). Lease fees for quota are typically high, and Olson (2011) notes that this can contribute to social conflict. For this reason, fish processors have often emerged as brokers for lease transactions, as some quota holders feel that the fee they are receiving is so great as to pose a risk to their community relationship with the lessee fisherman. Processors also become brokers because they have the best view of the quota demand market at any given time, and can identify the market clearing price more easily than an individual quota holder.

One recent article diverged from the discussion about the distributional equity of quota allocation, suggesting that a Council could use the initial allocation strategy to compensate sectors that are more likely to experience consolidation (Hanoteau 2012). This would, in effect, distribute the resource rent – now internalized in the value of quota – as a form of compensation.

Several authors presented conclusions about factors that affect the market price for quota sales and leases. Quota value is enhanced by the perceived quality of the harvest privilege that it confers; quality derives

[5] Individuals may even assume these risks for a below-market return if they place a high social value on maintaining a fishing lifestyle.
[6] The authors note that the allocation of 3 percent of the total fishing quota to hired captains Bering Sea crab fishery is an exception.
[7] The transitional gains trap exists only in the first generation of (free) quota ownership, as second generation quota owners who sell quota are earning only a normal return on an asset for which they paid.

from the exclusivity, durability, tradability and security[8] of the privilege (Van Hoof 2013; Arnason 2012). Excess harvest capacity can also drive up prices, as more fishermen need to acquire or lease quota to support an economical operation (Olson 2011). A growing stock biomass can also raise the price of quota, as larger fish populations tend to increase CPUE, which in turn increases demand for the more profitable harvest opportunity (Pereau et al. 2012).

Social considerations in designing quota-based management programs

Much of the recent literature addressing the socioeconomic aspects of quota regimes deals with potential inequity in the distribution of increased total resource rents across stakeholder groups. Several authors focus on harvest crew, who do not receive or earn fishing quota, but often give up a percentage of their pre-quota revenue shares to cover costs associated with funding quota for the vessel. Previous reviews of quota programs in Alaska have found that the total number of crew positions decreased under conditions of fleet consolidation, and that the remaining crew received a smaller percentage share of harvest revenues. While the remaining crewmen earned more income under the quota-based system, their aggregate share of the resource rent did not increase dramatically in the way of quota owners (Hartley and Fina 2001; Olson 2011; Carothers and Chambers 2012). Reduced percentage shares for crew, as well as the loss of new entry opportunities, are framed as a reflection of a general "loss of cultural values supporting equity" in fishing communities, that "damages the social fabric at both the household and community scale" (Pinkerton 2013, p.6; Olson 2011). Program reviews, ranging from Australia, the United Kingdom, and British Columbia to Alaska's BSAI crab fishery, identify varying degrees of a shift from share-based crew compensation to wage labor (Olson 2011; Cardwell and Gear 2013; Fina 2005). Olson proposes that this move towards wage payment diminishes crewmen's ability to negotiate working conditions, and renders crew an "unorganized surplus labor force" (p.358).

Multiple authors concluded, more generally, that inequitable distribution of quota benefits can affect the stability of both a fishery and the involved fishing communities (Van Hoof 2013; Clay and Olson 2008). As quota becomes more valuable, quota holders reaching retirement age are more likely to sell their harvest privileges, even when they report that they would prefer to pass them down within their own family or community (Cardwell and Gear 2013). Limited duration privileges, active participation requirements, quota reserves for new entrants, and restrictions on quota transfers between vessel classes are all suggested as measures that can address some aspect of the equity issue, though sometimes at a cost to maximizing the total resource rent that could be generated from the fishery (Van hoof 2013; Waldo and Paulrud 2013).

Once implemented, quota-based programs may prove inflexible and difficult to walk back. "Durable entitlements" could effectively preserve the socioeconomic status quo in the fishery and its supporting communities (Criddle 2012). Allocative decisions that achieve management goals in the near-term may have unintended consequences as biological, economic and social conditions change. Criddle and Strong (2013) cite the American Fisheries Act (AFA) directed pollock fishery as a case in which regulatory inflexibility created economic inefficiency, years after implementation.[9] The authors suggest that rigid restrictions on inter-sectoral quota transfers have reduced the value of the fishery. In this case, catcher vessel deliveries to motherships are limited, yet CVs are fishing farther offshore than they did when the Act was passed due to Steller sea lion mitigation measures; as a result, profitability for the inshore sector

[8] "Security" is defined by different authors in two different ways: Arnason (2012) defines security as the ability of a quota holder to maintain that harvest privilege in the face of theft or expropriation; Emery et al. (2012) and Van Hoof (2013) frame security as a measure of how predictable resource availability and successful harvest opportunities will be in the future.

[9] As an act of Congress, the AFA has a higher degree of permanency than a typical regulation initiated through the Council process.

has declined, and may continue to do so given rising fuel prices. The authors contend that this quota may be more valued, and more valuable, if it were transferable to another sector. External factors that might change over time and render an inflexible allocation strategy less desirable include, for example: product prices could fall due to increased substitutes entering the world market from aquaculture and harvests outside of the North Pacific region; the abundance and spatial distribution of target biomass could vary due to environmental factors; or fuel prices could rise to a point where distant waters fishing is uneconomical for vessels delivering to shoreside processors. Similarly, measures that link harvest in one area to certain processing communities could create a windfall if target biomass moves, or if the harvest fleet in one area is able to increase its catch of underutilized targets like GOA flatfish.

Achieving ecological sustainability goals under quota-based management

Recent literature exploring the link between quota-based management and ecological sustainability emphasizes the fact that a well-managed TAC is the key to preventing overfishing, and that harvest quota is not a necessary condition to achieve this goal (Carothers and Chambers 2012; Gibbs and Thebaud 2012; Melnychuk et al. 2012; Nowlis and Van Benthem 2012). In fact, catch limits and catch accounting – including discards – may be even more critical under a quota regime if, as mentioned above, a lease market results in a more skillful active fleet with a higher CPUE and a greater production frontier (Holzer, Lipton and Francois 2013).

Even combined, quota programs and TAC do not *direct* fishing effort, and could exacerbate localized biomass depletion (Emery et al. 2012; Walden et al. 2012). Given the opportunity, fishermen are likely to concentrate activity in locations that generate the highest marginal profit. To date, the market mechanisms used in fishery management have not been designed to capture the ecological costs of intensive fishing, and third-party certifiers have been slow to incorporate benthic habitat impacts into their criteria (Rieser, Watling and Guinotte 2013). Rieser et al. contend that many quota-based programs effectively "freeze the footprint" of ecological fishing impacts, sometimes in vulnerable areas. Higher exploitation in profitable areas could also be driven by the need to cover lease fees and quota costs, or by price premiums resulting from either stock scarcity or increased product demand in the world market (Emery et al. 2012; Emery et al. 2013). In short, factors that can lead to overexploitation and habitat impacts in a given area continue to exist under quota programs, and some input controls such as gear restrictions and area closures may still be necessary (Essington et al. 2012). Regarding area closures, Rieser et al. use New Zealand and Alaska's Aleutian Islands pollock trawl fishery as examples of industry using the regulatory process to take an active role in setting the location of conservation area closures, and doing so in areas where trawling was unlikely to occur, thus creating an illusion of conservation. The article generalizes that industry will reliably choose to minimize harvest cost and maximize flexibility in case of future stock migration.

Diekert (2012) also writes about the need for input controls within the context of a quota system. When harvest privileges are secure, fishermen have an incentive to maximize profit by fishing at the lowest cost per pound of catch. When product value does not vary greatly with the size of each fish, and when catch limits are set by tonnage rather than by the number of fish harvested, the dominant strategy will be to catch smaller, younger, more numerous and more aggregated fish. "Fishing down the size structure," also called *growth overfishing*, may impact biomass in the medium- to long-term, and would reduce the potential future value of the stock (p.566). The study suggests that TACs based on the number of fish caught are the dominant management strategy, as fishermen would naturally target fewer, larger fish. Given the low likelihood of such a watershed management change, Diekert suggests that gear regulations could shift catch towards larger individuals; however, mesh size may be irrelevant in a packed trawl net, so such an input control may not be applicable in the GOA groundfish trawl fishery.

Catch share proponents assert that quota management can increase management precision around the determined catch limits, reduce "ghost fishing" from stranded gear, and reduce regulatory discards[10] (Grimm et al. 2012). Essington et al. (2012) studied over 150 fisheries and concluded that quota-based management dampened the variance in fishery landings and exploitation rate, but had no effect on biomass. As for discards, a study of the Gulf of Mexico red snapper fishery found that participants discarded fewer fish when granted the ability to retain secondary species under the program and when observer coverage was increased; surveyed participants also reported a greater incentive to behave as stewards of their resource (Cullis-Suzuki et al. 2012). However, the same study proposed that while some would-be bycatch discards were avoided by giving fishermen the flexibility to find the best time and area to reduce non-target catch, participants that had small quota allocations actually experienced an increase in discarded target species on trips where their quota was reached. A study of Dutch trawl fisheries concluded that quota management, in and of itself, is not sufficient to eliminate illegal discards, underreported catch, and other behaviors that threaten stock sustainability, because quota confers only a "user right," not a true property right (Van Hoof 2013, p.463).

Gibbs and Thebaud (2012) critique an empirical study[11] showing that quota-based management is correlated with a significantly reduced probability of fishery collapse, pointing out that this conclusion is based only on the status of commercial target species stocks. The authors cite other work[12] concluding that the original study does not reveal much about the impacts of quota management on non-target species and habitat, where negative impacts may not be detectable in the near-term, or at a fishery-wide level.

Notes on program design and public perception

Managing for a balance of social and economic goals, within the bounds of the determined catch limits, is difficult because the set of fishermen is diverse; harvest cost structures and individual abilities vary, and are generally unknown to managers (Pereau et al. 2012). Moreover, stock dynamics are difficult to detect, and sometimes change over time. The reviewed literature identifies four key design elements for shaping a quota-based program that gives stakeholders the tools and incentives to act predictably, in accordance with management goals, and in a manner that is responsive to evolution in all aspects of the environment and the broader social economy. These elements are allocation, transferability, exclusivity, and security.

The discussion of consolidation and equitability in quota programs often revolves around allocation strategies. A managing body must decide both *what* to allocate and *to whom*. Quota can be allocated to an individual, a vessel, a firm, or a fishing community. Quota-based programs do not necessarily have to allocate all target species in a multispecies fishery in order to have a management impact on total biomass exploitation. Given the downstream effects of allocating quota, sometimes it is more appropriate to manage impacts on associated species through separate regulatory approaches, such as input controls (Gibbs and Thebaud 2012). If managers do want to manage impacts on non-target species through output incentives, Gibbs and Thebaud offer "quota discrimination systems" as a potential approach; using that approach, a quota holder would incur a tax or forfeiture from their target quota for excessive bycatch or for choosing to fish in key habitat areas.

[10] On the other hand, some program reviews have identified an increase in high-grading of catch under quota management (Copes and Palsson 2001).
[11] Costello et al. 2008.
[12] Branch, T.A. 2009. How do individual transferable quotas affect marine ecosystems? *Fish and Fisheries* 10: 39-57.

Transferability, exclusivity, and durability of the harvest privilege are all wrapped up in the concept of quota security.[13] Here, security reflects the quota-holder's feeling about the *quality* of the access privilege they hold – whether the fishery will remain accessible and productive, and whether the holder can leverage or exchange the economic value of the quota in the future. Fishermen are more likely to heed short-term incentives if they do not view the value in their quota as secure, or high quality (Nowlis and Van Benthem 2012). Some management measures used in conjunction with harvest quota can diminish the security aspect of the privilege, reducing the fleet's commitment to ecological sustainability objectives. Emery et al. (2012) suggest that imposing area closures on a quota-based fishery can reduce profitability, leaving fishermen with less incentive to manage for future profits by prioritizing sustainability and actively avoiding localized depletion in high-margin fishing grounds. Even in an unrestricted transfer market, uncertainty about the future can actually inhibit the flow of quota to the most efficient user. Low security will depress the lease price for quota, which in turn can lead to more leasing, increased fleet size, competition, and a lower quota asset value; lower asset value is an investment barrier, reducing the incentive for the most efficient fishermen to acquire the quota (Emery et al. 2013).

While many authors write about the benefits of quota management – increased resource rents, enhanced management precision, and lower enforcement costs[14], to name a few – others explore why more of these programs have not been implemented. The common theory that emerges is that quota is not *required* in order to achieve biological sustainability goals, and that it comes at a cost to stakeholders who do not receive quota. In a Gulf of Mexico stakeholder survey, Tokotch et al. (2012) report that non-participants held a more favorable view of quota programs; these stakeholders perceived the management benefits without the concerns over equity and loss of access that was expressed by second-generation fishermen, crew, and owners of fishery-supporting businesses that would not receive harvest quota. Arnason (2012) suggests that the key group opposing a transition to quota management is incumbent fishermen who are doing well under limited access (earning inframarginal rents). Other authors propose that quota management is stalled by the need to protect the people and communities that depend on an overdeveloped supply of supporting businesses, where labor and capital investments are often less malleable (Boyce 2004; Olson 2011). Olson (2011) further notes that some quota programs have had an external impact on effort in other fisheries, sometimes in other regions. In addition to measures like sideboards, active participation requirements could help to prevent effort from spilling over into other fisheries, while keeping fishery access available to future generations without creating a transitional gains trap (Van Hoof 2013; Cardwell and Gear 2013; Olson 2011).

Several authors critique what they see as the current "cognitive model" in fisheries management: an assumption that market mechanisms will remove the politics from fisheries management, and a perception that economists prioritize near-term efficiency over long-term protection of the social fabric in fishing communities (Carothers and Chambers 2012; Loring 2012; Pinkerton 2013; Carothers 2013). Pinkerton (2013) hypothesizes that the underlying policy objective in forming the Canadian halibut ITQ program in the 1990s was to enhance manageability and cost recovery through centralization, "as much (or more than) [the stated goals] of providing stability and viability for the existing fleet" (p.11). Social survey work in New England concluded that fishermen have a strong preference for small, area-based cooperative forms of management, which do not require a quota aspect to the program (St. Martin 2001).

[13] Note that "security" was used somewhat differently when referenced earlier, referring more to the long-term viability of the fishery or the management regime itself (Arnason 2012; Emery et al. 2012; Van Hoof 2013).
[14] Yagi et al. (2012) and Porter, Jylkka and Swanson (2013) both cited fewer enforcement cases, and a shift from catch limit overages to recordkeeping and reporting violations. The latter paper examined the Gulf of Mexico commercial reef fish fishery; the authors noted that the causal link between quota management and reduced violations was not totally clear, as implementation of the program coincided with a new vessel monitoring system (VMS) program.

Experience shows that most major programs have unintended consequences, and building adaptability into a new management regime is prudent. Some adaptability could be achieved by specifying a trial period, after which the program would need to be reauthorized or allowed to sunset (Copes and Palsson 2001). This, however, could weaken the security aspect of quota during the trial period, or could simply prolong a period of strategic behavior that does not necessarily align with the program's objectives.

Throughout this review, staff has been careful to refer to quota as conferring only a harvest privilege, not a compensable property right. Fina and Kade (2012) provide a legal review of this issue, noting that while the MSA contains a disclaimer stating that quota does not confer a right, some programs, including federal loan programs, sometimes contradict this notion in practice. Fina and Kade stress that a Council should seek to moderate the expectation that quota is real property, while still providing enough security and transferability to incentivize desirable stewardship behavior. Regarding program design, the authors of the paper consider how quota holders might be treated if the managing authority decided to revert from quota-based management to a limited access fishery. The authors point out that if quota is both divisible and transferrable after initial allocation, the number of quota holders could increase. Any reversion to limited access management could then result in a greater number of licensed participants in the reestablished limited access fishery. They suggest that the original plan could set a minimum threshold amount of quota that an individual would need in order to re-enter the limited access fishery; those whose holdings do not meet the minimum could either purchase quota from others, or sell their quota and effectively receive compensation for exiting the fishery.

3 Summary of Stakeholder's "Trawl Bycatch Management Proposals" Presented to the Council at its June 2013 Meeting in Juneau, AK

The Council directed its staff to prepare a summary of the "Trawl Bycatch Management" proposals that were presented at its June 2013 meeting. This paper presents that summary of the eight proposals. Elements and options from each stakeholder proposal are identified. Legal and regulatory issues are identified and presented. A brief discussion of the scope of all the proposals submitted is provided. Finally, the elements and options of the eight proposals are compared in a summary table presented in an Appendix.

Some the proposals are more complete in defining necessary elements of a catch share program. Other proposals contain specific elements that could be included within other programs that were presented. The intent of this paper is not to develop the elements and options for a complete catch share program by selecting one or more proposals and combining elements from each paper. Instead the objective is to describe the elements contained in each program. The authors of the various proposals can then work within the formal Council process to refine their proposals to address those concerns; stakeholders may also work through the Council process to determine how their program elements fit within any structure of elements and options that the Council develops.

Because the objective of this paper is to summarize the various elements and options presented to the Council, the authors do not attempt to analyze the alternatives or address the merits of the various proposals. That role will be filled by the Council and their advisory panels as part of the process to develop a list of elements and options that Council staff will be tasked with analyzing.

To compare and contrast the elements of the eight proposals, staff developed a summary matrix (Appendix) that primarily focuses on the Tier 1 decision points outlined in the staff discussion paper

presented to the Council in June. As discussed in at the June Council meeting the Tier 1 decision points are somewhat arbitrary and additional items could be added to or deleted from Tier 1. The Tier 1 decision points in the June paper are:

- What species are allocated,
- How are the species allocated,
- To whom is it allocated,
- Annual allocation type,
- Fishing areas included in the allocation,
- Duration of the allocation, and
- Transferability of fishing privileges.

Tier 2 issues will also be discussed as they relate to the stakeholder's proposals. The purpose of this document is not to provide solutions for each issue. Instead the authors attempt to identify the issues and why they are a concern. This information may aid the proposals' authors and the Council in identifying appropriate solutions if elements of those proposals are moved forward by the Council. The analysts have based this discussion on the proposals as they were presented to the Council in June.

The Council requested that the discussion paper identify areas where the proposals may not comply with the Magnuson-Stevens Act, or may encounter other legal constraints. As can be seen in the Appendix comparing the proposals to the Tier 1 issues, the proposals vary widely in terms of scope, detail, and policy direction. However, all of the proposals present a general concept for trawl PSC management. For example, Proposal 1 includes the general concept of using a PSC and MRA "bank." Proposal 2 contains the general concept of using community fishing associations. The general concept presented in Proposals 3, 4, 5, and 8 is the use of cooperative quota, whereas Proposal 6 uses the general concept of individual fishing quota. Some of the concepts reflect approaches contained in other Alaska catch share fisheries; some present new concepts and ideas for a bycatch management program. While all of the proposals have some level of detail as to how the management concept would be implemented, some proposals include more implementation detail relative to other proposals.

At this preliminary stage, none of the broad concepts generally presented in the proposals appears to be legally prohibited by the Magnuson-Stevens Act. However, none of the proposals is immediately implementable. All of the proposals require further development and analysis, and it is premature to conclude that any proposal is fully compliant with the Magnuson-Stevens Act and other applicable law. The Council will be considering whether these, and any other, proposals are reasonable alternatives to achieving the goals and objectives currently identified by the Council for a trawl bycatch management program. While the Council and NMFS are not obligated to consider an alternative that lacks statutory authorization and consistency with the Magnuson-Stevens Act, the Council may determine that a proposal is a reasonable alternative for further examination and analysis, even if it is currently inconsistent with the MSA or other applicable law. In making such a determination, the Council would need to consider both whether the alternative is a reasonable approach to achieving the Council's identified goals and objectives, and the likelihood of Congressional action to change the law such that the alternative would become legally viable.

If the Council decides to forward the current suite of proposals as alternatives for analysis, all of the specific measures for each alternative will need to be evaluated for consistency with the Magnuson-Stevens Act and other applicable law. It is apparent at this early stage in the process that some of the initial measures included in some of the proposals warrant closer examination for consistency with, and authorization under, the Magnuson-Stevens Act. For example, as the Appendix indicates, Proposals 2 and

3 contain measures that could create "AFA-style" cooperatives. If the intent of these measures is to create fixed linkages between harvesters and shore-based processors, as occurs with AFA-style cooperatives, then these measures would not be consistent with the Magnuson-Stevens Act as the MSA does not currently authorize such measures. Additionally, Proposal 2 includes measures that would allocate 100 percent of the target species, non-target species, and PSC included in the program to a single entity identified as a community fishing association (CFA). The proposal states that the CFA would be established in accordance with the requirements for a "fishing community" at section 303A(c)(3) and that the CFA would determine how to re-allocate its quota allocation according to criteria, goals, and objectives specified in regulation. National Standard 4 states that conservation and management measures must not discriminate between residents of different States, and that if fishing privileges are allocated or assigned among U.S. fishermen, such allocations must be fair and equitable to all fishermen, reasonably calculated to promote conservation, and carried out in such a manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges. It is not clear at this stage of the proposal's development how an allocation of 100 percent to a single entity is consistent with National Standard 4's requirement that no particular entity acquire an excessive share of the fishing privileges. Also, the CFA's re-allocation of fishing privileges may constitute a delegation of discretionary authority to the CFA, which may require final approval of the CFA's recommendations and an opportunity for administrative appeal before the re-allocations could become effective.

Further development of the specific details of these and the other proposals currently before the Council may solidify or remove any initial concerns with the legal viability of a proposal, or may indicate that certain modifications are required to bring the proposal into conformance with legal requirements.

3.1 Americans for Equal Access

3.1.1 Proposal Background

This proposal was developed by a self-described "trade and community association" that advocates for public ownership of, and equal access to, the nation's fisheries resources.

The goal of the program is to frame an allocative program in a way that promotes individual and collective bycatch accountability without privatizing access to the fishery, now or in the future. The foundation of the program is that quota, of any kind, should not be allocated to individuals or other entities. Rather, NMFS should maintain "ownership" of all quota shares and allocate non-transferable fishing or bycatch allowances (similar to IFQ or IBQ) to active fishermen on an annual or sub-annual basis. The proposal suggests that this management structure could work either with or without granting fishermen the ability to form cooperatives, though harvest cooperatives could provide the additional inseason flexibility needed to improve retention of target and secondary species. The proposal also suggests this non-ownership structure could support additional bycatch performance incentives.

3.1.2 Tier 1 Decisions

3.1.2.1 What species are allocated by area

The proposal envisions the allocation of annual allowances in several different ways. AFEA requests that the Council consider allocating immediate-term privileges for either bycatch, or bycatch and primary species. The proposal does not state whether these allocations would be area-specific or Gulf-wide.

Staff interprets primary species to mean all target species for which a directed fishery opens, though none are specified in the proposal. For "bycatch," the proposal describes establishing quota for both PSC and MRA, to be allocated as two separate privileges. PSC is assumed to mean halibut and Chinook salmon.

The proposal is not explicit about the meaning of MRA quota. Staff presumes that allocating MRA could mean one of two things: (1) fully allocating secondary species for which a directed fishery is not typically opened; or (2) allocating the remaining portion of the TAC for primary species once the directed fishery for that species has been put on bycatch (MRA) status. The latter of the two would be more challenging from a management perspective, since the Agency's inseason management team examines a number of factors to determine the point at which to move a directed fishery to MRA status. Those factors, and the resulting TAC remainder, are likely to vary from year to year. The allocation of PSC and primary species TAC is intended to increase individual bycatch accountability and to reduce incentives to race for fish. Allocating MRA, especially as conceived in the second manner described above, seems to relate more to reducing regulatory discards.

3.1.2.2 How are the species allocated

Annual fishing or bycatch quota would be allocated "by fishery." In stating that savings – unused bycatch – could be rolled over to the next fishery, the proposal implies that quota would be allocated for each primary species fishery; for pollock and Pacific cod, quota could be allocated for each GOA trawl season that is defined in regulation. The proposal calls for available PSC and MRA to be apportioned to each directed fishery (or season of a fishery) according to how much bycatch or incidental catch that is typically required to prosecute that fishery.

3.1.2.3 To whom is the allocation issued

Annual quota would be allocated to active vessels that possess the necessary Federal Fisheries Permit and LLP license. The proposal specifically states that processors would not receive quota, other than quota allocated to vessels they may own. While the proposal provides no further detail, staff presumes that vessels would have to make a binding declaration of intent to participate in a given fishery for which quota will be issued. The Agency may have to monitor vessels to determine whether they prosecuted the fisheries for which they received quota in good faith. An appeal process would need to be put in place, should the Council include any sanctions in the program for vessels that over-represent their need for quota.

The pool of quota allocated for each fishery could be divided equally among active participant vessels, or divided according to vessel capacity. The proposal does not include further details on how capacity or quota demand should be determined.

3.1.2.4 Annual allocation type

The central element of the proposal is the type of quota allocated to active vessels. Vessels would receive annual (or sub-annual) harvest or bycatch allowances, but would *not* receive the underlying quota shares. This would be the case whether the Council decided to allocate primary species, secondary species, prohibited species, or MRA in the manner described above.

3.1.2.5 Duration of the allocation

As stated above, allocations are only made in the immediate-term. This could mean annually, or for a season of a specific fishery.

3.1.2.6 Transferability of fishing privileges

The annually allocated privileges would not be transferable. If the program is implemented with a cooperative structure, limited leasing within cooperatives might be allowed in cases of special hardship, or to increase retention by reducing regulatory discards of incidental catch. The Agency would have to

monitor these transactions in order to verify that lease arrangements were not pre-arranged, and that the goal of an active quota-holder fishery is being met.

3.1.3 Other issues

The proposal states that a program with unowned annual or sub-annual quota could also be administered within the framework of a cooperative structure, though it does not clarify whether cooperative membership would be mandatory in order to receive quota. The makers of the proposal assume that cooperatives would coalesce around a given processor, but there is no mention of restricting harvesters' ability to change cooperative affiliations without penalty. Cooperatives are presented as a tool with which to mitigate risk in the case of unexpected individual PSC overages, and to reduce "waste" in the case of harvest quota or MRA overages. The proposal does not detail required elements for cooperative bylaws, nor does it specify the Agency's role in overseeing or approving cooperative-level rewards, sanctions, or temporary spot leases of quota.

Observer coverage is not addressed in this proposal. However, suggestions that the program could include performance-related incentives indicate that 100 percent coverage is necessary.

3.1.4 How Does the Proposal Address Council's Initial Goal of Providing Tools to Avoid/Minimize GOA PSC

The key element of the proposal for addressing PSC in the GOA trawl fisheries is allocating annual, non-transferable bycatch allowances at the vessel level, thereby creating individual bycatch accountability. A vessel that reaches its individual PSC quota in a fishery would be forced to stop fishing, and overages would be deducted from the vessel's allowance in "their next fishery." The proposal is not specific as the whether the next fishery means the next season or year for that target species, or the next quota-allocated fishery in which that vessel plans to participate. A vessel's cooperative could choose to cover a PSC overage using quota from other members.

The proposal includes a precautionary measure whereby a vessel would be required to stand down upon reaching a certain percentage of their PSC quota for that fishery. The vessel could resume fishing when either the Agency or the vessel's cooperative, depending on the program structure, determined that the vessel could complete a trip with a low probability of exceeding their available quota.

Finally, the proposal includes incentives to perform to a higher standard of PSC avoidance. Vessels that do not use up their allocation of PSC quota would be able to bank a portion of the unused amount for use in another fishery, or in the same fishery in a later season or year.

3.2 Alaska Marine Conservation Council; Gulf of Alaska Coastal Communities Coalition; Ernie Weiss, Aleutians East Borough; Alexus Kwachka; Dave Kubiak

3.2.1 Proposal Background

Several stakeholder groups representing a wide-variety of interests from the Gulf of Alaska developed this proposal. The proposal focuses on developing a new catch share structure to "put fishing communities at the center of the program." The program is intended to provide the trawl sector with the tools to reduce PSC and bycatch in the Gulf of Alaska, while addressing several issues that the proposal developers have identified as concerns with more traditional catch share programs. Objectives of this program are to create a catch share program structure that addresses capital flight from rural communities,

excessive consolidation, absentee owners that charge high lease fees to other harvesters, and persons receiving the initial allocation capturing the quota's future rent stream.

To accomplish these objectives, this proposal would allocate 100 percent of the Gulf of Alaska trawl quota for primary, secondary, and PSC species to a third party community fishing association (CFA).[15] The CFA is patterned after the Fishing Community definition in the MSA. The community fishing association (CFA) would be comprised of an executive committee and two regional bodies, one body representing the Central Gulf and one representing the Western Gulf. Representatives of these committees would develop performance standards and scoring criteria based on Council and NMFS objectives to determine the distribution of 40 percent of the quota after the second year of the program.

3.2.2 Tier 1 Decisions

3.2.2.1 What species are allocated by area

The species allocated under this program are all the GOA groundfish species (or species groups) that have a TAC amount set and are harvested by trawl gear. PSC species that have trawl catch limits set in the Gulf of Alaska (halibut and Chinook salmon) would also be allocated to the CFA.

3.2.2.2 How are the species allocated

All quota shares are allocated to a CFA that then determines the amount of each species that will be re-allocated. The CFA leases annual quota to cooperatives. The amount a cooperative can lease is based on the LLP holders or vessels that are members of the cooperative. During the first two years of the program, the IFQ lease amounts for a cooperative are formulaic and based on the fishing history of the member vessels/LLPs.[16] During those two years, the amount of each species a cooperative can lease from the CFA is based on catch history and is defined by the Council. The CFA does not control the amount of each species allocated to cooperatives, but would collect lease fees. The catch history years used to determine the allocation have yet to be defined. After the first two years, the allocation is still formulaic. However, 40 percent of the allocation formula is based on performance standards. As proposed, those performance standards would be developed and adjudicated by the CFA board, based on goals and objectives identified by the Council. The remaining cooperative quota would be allocated based on an equal division of the 30 percent of the cooperative quota to each qualified vessel and 30 percent of the available cooperative quota being allocated based on historical participation.

The new entrant provision would allow persons that purchase a vessel or permit to be allocated the average annual allocation for that class of vessel, based on capacity. Definitions of capacity classes as well as definitions of permit/vessel transfers must be developed. This provision could redistribute the amount of cooperative quota a person can lease from persons with larger catch histories or from harvesters who receive an increased allocation by meeting performance standards to new entrants.

3.2.2.3 To whom is the allocation issued

NMFS would issue the harvest privilege for 100 percent of the GOA trawl groundfish TAC and PSC allocations to the CFA. The CFA in this proposal must:

- Be a non-profit entity qualified by NMFS;
- Have developed a community sustainability plan approved by the Secretary;

[15] Additional discussion of the CFA concept is presented in Section 5 of this document.
[16] Unless LLPs/vessels are sold and a "new entrant" is allowed to lease quota up to the class average, this would hold.

- Consist of residents who conduct commercial or recreational fishing, processing, or fishery dependent support businesses within the Council's management area.[17]

3.2.2.4 Annual allocation type

Annual cooperative quota (CQ) is leased by the CFA to cooperatives. The cooperative quota is then distributed to cooperative members based on the internal cooperative contract. A definition of how PSC would be "leased" by the cooperative is needed, since PSC currently has no ex-vessel[18] value set through market mechanisms. Therefore, PSC would need to be "leased" to cooperatives using a different method than groundfish. For example, lease fees could be collected from just groundfish (PSC would be granted to cooperatives), or PSC could be leased at fixed rate that is not based on a PSC value. These options, along with the ability of a CFA to lease quota, would need to be explored if this alternative is moved forward by the Council.

3.2.2.5 Duration of the allocation

The duration of this program is not defined in the proposal. However, the MSA catch share duration limit of 10-years is assumed to apply. That limit does not mean the program must expire after that point. It could be renewed and continued without modification to the program's structure.

3.2.2.6 Transferability of fishing privileges

The proposal does not limit transfers between members of a cooperative. No provisions are included in the proposal for inter-cooperative transfers within a year.

3.2.3 Other issues

The program assumes that 100 percent observer coverage would be implemented by NMFS for all trawl vessels harvesting cooperative quota issued by the CFA. The observer coverage requirements would be established to ensure both groundfish catch and PSC are accurately counted.

To be eligible to receive CQ a vessel must meet the historic participation requirements or purchase a qualified LLP or vessel. In addition, the vessel/LLP owners must comply with CFA contract terms and conditions. Those conditions may include:

- Delivery/landings requirements based on historical patterns;
- Membership in a cooperative and/or risk pool and PSC avoidance measures;
- Active participation in the fishery (perhaps owner on board);
- Crew share compensation standards.

Another aspect of this program is that the cooperatives must include a processor to have access to quota from the CFA. This cooperative structure may exceed both the Council and Secretarial authority. As discussed in the introduction to Section 3, the proposal may need to address this issue if the Council wishes to continue to include it in the alternatives it forwards.

Consolidation limits for vessels and processors would be set to ensure that the quota is not harvested/processed by too few entities. The concept is to limit consolidation, ensuring that more

[17] This is defined as the Western and Central GOA in the proposal.
[18] Ex-vessel value is assumed, since it is not defined in the proposal.

employment opportunities are available. The proposal places the consolidation limits section under the CFA heading, but does not define whether the CFA will determine and monitor those levels, or if they would be included in Federal Regulations developed by the Council and NMFS.

Because this proposal is based on a new catch share structure that has never been implemented by the Council, it raises several unique questions that must be addressed if this proposal is developed further. These questions primarily involve defining the responsibilities of the Council, NOAA Fisheries, and the CFA. For example, the proposed structure would result in NMFS allocating 100 percent of the available trawl harvest to the CFA. The CFA would then distribute the quota to cooperatives based on the LLPs/Vessels that join the cooperative. Several questions are not addressed in the proposal. The structure of the program must clearly define the responsibilities of the Council, NMFS, and the CFA. Proposers of this program acknowledge that further development of the program's structure is needed. Some of the issues that have been identified that require further clarification are listed below. This list is not intended to be an exhaustive list of the issues that must be addressed.

- If NMFS allocates trawl quota shares to the CFA, who is responsible for catch overages, violations, submitting cost recovery fees, and monitoring harvest at the vessel/cooperative level?
- What delegation of authority issues are associated with the structure developed?
- What is the structure of the appeals process that must be included in the program?
- What is the roll of the CFA in the NMFS catch accounting process? What information would the CFA be required to submit to NMFS (cooperative structure, annual allocations to individuals/cooperatives, annual CFA reports, etc.), and what information would NMFS be asked to submit to the CFA? Who within the CFA structure would have access to confidential catch accounting data, how would that access be granted, and how would the CFA protect confidential data?
- How does the CFA determine the annual lease fee to ensure the proposed cap is not exceeded?
- Is the process to determine the annual allocation of the 40 percent of the quota (discretionary allocation) open and public?
- What role does the CFA serve that could not be accomplished as well or as efficiently through the traditional Council/NMFS/Secretarial process for the 60 percent of the quota that the CFA would not have discretionary authority to allocate?
- Would the CFA have the authority to withhold some of the annual PSC from the fleet? If the answer is yes, the CFA would have the authority to reduce the annual PSC limits.

As stated in the earlier, these issues could be addressed as the proposed CFA concept is developed further. However, these and other issues must be more clearly defined and perhaps restructured before the current proposal could be analyzed and/or implemented.

3.2.4 How Does the Proposal Address Council's Initial Goal of Providing Tools to Avoid/Minimize GOA PSC

During its first two years, the program would provide similar tools for reducing PSC and bycatch as other cooperative-based programs. Each person would be responsible for their use of PSC and target fishery allocations. Financial incentives to utilize the limiting resources as efficiently as possible are imbedded in the individual responsibility. After the program is in place for two years, the amount of quota that a person may lease is determined, in part, by their past and current behavior. Persons that are more effective in avoiding PSC or efficiently utilizing their PSC allocation in previous years could be allowed

to lease a greater percentage of the available quota. The CFA may provide greater flexibility to reward persons that exhibit the behavior it encourages, depending on the process developed to allocate quota.

3.3 Alaska Groundfish Databank; Alaska Whitefish Trawlers Association; Pacific Seafood Processors Association; Groundfish Forum; and others

3.3.1 Proposal Background

This proposal was developed by a diverse group that represents many of the harvesters and processors that operate in the Central Gulf and West Yakutat District. Elements and options for the program's design provide substantial detail for many aspects of the program, but not all. Proposals for the Western Gulf have been presented by the Peninsula Fishermen's Association and the United Catcher Boats, and are discussed in other sections of this paper.

The goal of the program is to create a management structure that allows harvesters and processors to work together to reduce (or better utilize) their PSC. The cooperative partnership between harvesters and the processor to which they deliver their catch is the foundation on which the program is built. Cooperative members have an incentive to share information that can reduce their overall rate of PSC. Acceptable behavior is defined by the cooperative, with input from the Council and NMFS. Members voluntarily join the cooperative, but all members must agree to abide by standards defined in the cooperative contract. Persons that do not meet those standards are subject to sanctions imposed by the cooperative.

3.3.2 Tier 1 Decisions

3.3.2.1 What species are allocated by area

The primary species allocated to the cooperative would be Pacific cod (CG only) and pollock (excluding 610). These are species for which a NMFS opens a directed fishery, that are highly valued, and that are given a high priority for ensuring that PSC is available. Therefore the fisheries are typically not constrained by PSC limits. An option was included in the proposal that would also allocate Pacific Ocean perch and dusky rockfish (West Yakutat District only). An additional option would allocate rex sole and deep water flatfish as primary species in the Central Gulf. Rex sole is highly valued relative to some other flatfish species. Not allocating Rex sole could result in increased effort in that fishery. Deep water flatfish, if not allocated, could result in a race to harvest the TAC. The other directed fishery species that are not allocated would be limited by a person's ability to manage their PSC. TACs for many of these species are well below the ABC, and could be increased if halibut PSC usage rates improve under the program.

Secondary species of skates (long-nose and big) and sablefish would either be allocated or continued to be managed under current MRA limits. The persons drafting this proposal considered allocating those species because of their value as catch in other target fisheries. These species, especially sablefish, have been utilized in the past to increase the ex-vessel value of a trip that targeted lower value species. Adding the value of sablefish to the target species harvested may allow such trips to be profitable. As a result, even though there is not a directed trawl fishery for sablefish, persons may realize increased incentives to harvest up to the sablefish MRA when they are no longer racing to harvest directed fisheries.

Halibut and Chinook salmon[19] PSC would be allocated. These are the only two PSC species currently apportioned in the Gulf of Alaska. The PSC limits would need to be divided between CPs and the

[19] Chinook apportionments may need to be modified after Council action for GOA non-pollock Chinook bycatch

Inshore (CV) sector. This would also require dividing the PSC limits so that the Western Gulf Inshore apportionment can be set aside for their program. PSC would be allocated for the Central Gulf (Chinook)[20] because there is currently no cap applied to the West Yakutat District. Inshore halibut PSC would be allocated for the Central Gulf and West Yakutat District.

3.3.2.2 How are the species allocated

The first step in the allocation process is to determine the percentage of the future TACs that would be allocated to the Inshore sector and the trawl CP sector. Sector allocations that are defined by existing amendments would be maintained. These amendments include the Pacific cod sector split (Amendment 83), CGOA Rockfish Program (Amendment 88)[21], and GOA pollock inshore and offshore allocations (Amendment 23).

Primary species (flatfish and rockfish) that are not currently allocated among the two sectors would be divided based on historical catch, if they are allocated, and not managed through the PSC allocations.

The proposal does not indicate how secondary species would be allocated among the two sectors. That information would need to be provided if aspects of this proposal are moved forward. However, it appears that the same process used to allocate primary species among the two sectors could also be applied to secondary species.

PSC would be allocated among the sectors based on historical PSC usage by the sector over a period of years. The proposal includes four different sets of years for consideration. The sets of years selected cover both recent past and earlier history.

After the sector allocations are determined. Primary and secondary species would be allocated to cooperatives within the sectors based on historic catch. The proposal includes six options. Three of the options are based on the same time period, but allows the person to drop either 0, 1, or 2 years. After the primary and secondary allocations are made, PSC allocations would be based on the amount of primary species each persons is allocated. Historic use rates in the directed fisheries would be used as the basis for these calculations.

PSC would be apportioned based on target fishery history. Allocating PSC by fishery or fishery groupings will require additional decisions after the primary species allocations are defined.

3.3.2.3 To whom is the allocation issued

The primary, secondary, and PSC allocations of QS will be attached to the groundfish LLPs used to make the qualifying landings. QS for each allocated species is attached to the LLP.

3.3.2.4 Annual allocation type

The primary, secondary, and PSC allocations will be made to the eligible cooperatives based on the qualifying catch history. Allocation amounts are determined by qualifying history associated with the groundfish LLPs that their owners bring into a cooperative. Once the allocation is made to the cooperative, the members of the cooperative determine how the allocation is divided among its members. This is defined in the cooperative contract to which all members must agree. Penalties for exceeding a person's harvest are imposed by the cooperative. If the cooperative exceeds its allowable harvest of a species, the Federal government may impose penalties on the cooperative.

[20] Chinook PSC only has a placeholder reference until the limits are clarified.
[21] All proposed PSC options exclude rockfish program apportionments.

3.3.2.5 Duration of the allocation

The proposal does not address the issue of duration of fishing privileges. It is assumed that the intent of the makers of the proposal is to issue fishing privileges for the maximum amount of time (10 years) allowed under the MSA. It is also assumed that the fishing privileges would be renewed unless the Council took action to modify or revoke the privilege.

3.3.2.6 Transferability of fishing privileges

Because the QS is attached to the LLP, it is assumed that the QS must be transferred with the LLP. IFQ assigned to the cooperative may be transferred within the cooperative, based on the cooperative's by-laws. IFQ transfers between cooperatives will also be based on cooperative rules and contracts. However, transfers between cooperatives will also require approval by NMFS. Without a mechanism to notify NMFS of transfers between cooperatives, NMFS would be unable to determine when and if a cooperative has exceeded their annual harvest limit of groundfish or PSC limits.

3.3.3 Other issues

This cooperative structure is similar to the AFA inshore cooperatives where harvesters are required to deliver their catch to the processor associated with their cooperative. Persons that do not wish to join a cooperative have the option to remain in the open access fishery. Harvesters in the open access fishery must compete for the target species and PSC that are available. Any catch they make may be delivered to the processor of their choice.

The cooperative structure and bylaws developed by the cooperative members facilitate the sharing of information, enforcement of harvest standards, and other standards the harvester and processor must maintain. Specific harvest standards could be required by the Council to form a cooperative, or could be developed at the discretion of the cooperative members. That level of detail is not defined in the proposal. However, the proposal does require that a cooperative agreement be signed by all voluntary cooperative participants. The cooperative agreement must:

- Define by-laws and rules for operation;
- Allows cooperative entry by eligible harvesters under the same rules and conditions as other members;
- Specify that processors and harvesters cannot engage in price setting negotiations, except as permitted under anti-trust laws;
- Specify terms and conditions for a harvester to move to another cooperative ;
- Clear and specific plan for monitoring, controlling, and reducing PSC;
- Members are jointly and severally responsible for all quota harvest limits;
- Inter-cooperative transfers are allowed;
- Allows for collection of appropriate harvest and processing data to measure cooperative performance;
- Submit an annual performance report to the NPFMC for review (requires Council direction on content of report).

Options are included in the proposal for harvester movement among cooperatives after a cooling off period of an undefined amount of time. During the cooling off period, no new processors could enter the fishery, and harvesters would be required to deliver to their historic processor. After the cooling off

period, harvesters would be allowed to move to a different cooperative (or processor), but they would be required to leave an unspecified percentage of their QS and PSC with the cooperative they leave. NMFS would be required to track the quota shares left with the cooperative and redefine the quota holder.

A second option would allow cooperatives to develop an exit strategy mechanism that must be included in the cooperative contract before QS is allocated to the cooperative. The specifics of this structure are not defined. Alternatively, the Council could develop a regulatory structure where harvesters could leave a cooperative. These terms and conditions for a harvester to move cooperatives would need to be developed and defined in regulations.

A landing requirement for harvests taken from the Central Gulf or West Yakutat district is proposed. This provision is intended to provide community protection for Kodiak. There are several options to define the catch that must be delivered to a specific community. These options include all landings from the Central Gulf being delivered to cooperative processors in the city of Kodiak, or landings to cooperative processors based on historic delivery patterns.

The proposal defines processing caps with a grandfather provision of 20 percent through 30 percent. Harvester use caps are discussed, but levels for the caps are left unspecified. Use caps will need to be defined if aspects of this proposal move forward.

Finally, observer coverage is not addressed in this proposal, but statements that identify the need for accurate catch accounting of PSC, primary, and secondary species indicate that 100 percent coverage is necessary. This assumption has been made in the restructured observer program for all LAPPs. It is anticipated that the need for that level of coverage and data would extend to this program.

3.3.4 How Does the Proposal Address Council's Initial Goal of Providing Tools to Avoid/Minimize GOA PSC

The management approach presented in this proposal provides incentives (economic, biological, and political) for harvesters and their associated processor to work together. The information sharing and cooperative structure of the program could allow target species to be utilized more effectively by reducing PSC rates. The components of this program that facilitate the sharing of information within the cooperative are the linkage with the central processor and the removal of the need to compete for catch. Working closely with the processor creates an incentive for everyone in the cooperative to increase target catch while controlling PSC rates. Persons that do not want to expand their catch of species they did not traditionally harvest could lease unused PSC to other members. Persons leasing the PSC would want to minimize its use to reduce costs. However, the ability to easily transfer, or pool, PSC in the cooperative may result in cooperatives being more likely to catch up to their halibut PSC limit. The ability to access additional flatfish, by not allocating it to cooperatives, increases the likelihood of this result.

3.4 Groundfish Forum

3.4.1 Proposal Background

This proposal was developed by members of the Groundfish Forum that represents all but one trawl catcher/processor that currently operates in the GOA.

The goal of the program is to add specific alternatives to any catch share program that the Council wishes to develop. Alternatives presented in this paper, in themselves, do not provide the structure for a catch

share program. However, the alternatives could be included within another program, if the Council chooses to forward the elements of this proposal as part of a larger program.

3.4.2 Tier 1 Decisions

The Groundfish Forum proposal requests that under any program considered, the Western Gulf rockfish species Northern, dusky, and Pacific Ocean perch be included in the trawl catcher/processor allocation. The remaining Tier 1 decisions are not defined, but the intent of the proposal's author(s) is that they would be allocated as defined in Section 3.3.2.

3.4.3 Other issues

Groundfish Forum's proposal also requests that the Council include an alternative in its catch share program analysis that would keep the existing GOA trawl catcher/processor sideboard limits in place for the Western Gulf and the West Yakutat District.

3.4.4 How Does the Proposal Address Council's Initial Goal of Providing Tools to Avoid/Minimize GOA PSC

Alternative identified by this proposal may allow individual fishing companies in the catcher/processor sector to determine how and when to fish in the Western Gulf and West Yakutat District. The ability to effectively manage the sideboard limits will depend on how they are allocated and the management structure that the trawl catcher vessels in those areas are fishing under.

3.5 Pacific Seafoods

3.5.1 Proposal Background

This proposal was developed by Pacific Seafoods to add alternatives to address processor and community protection issues to a catch share program's elements and options that the Council will develop/consider. The ideas presented in this proposal were not intended to contain all of the elements necessary to develop a complete catch share program. However, the proposal was presented based on the assumption that the concepts presented could be included as part of a more developed proposal. For example, the maker of this proposal suggested that it could be included in the program presented in Section 3.3, and references sections from that proposal to describe how this proposal would function. However, because the authors of the proposal in Section 3.3 did not specifically include these alternatives, and many of the elements in that proposal were carefully negotiated and crafted, the analysts do not assume that it is appropriate to include the elements of Pacific Seafoods' proposal in the larger proposal. Conversely, if the alternatives presented here are supported by the larger group or the Council determines they should be considered, they could be analyzed in the context of that program's overall structure.

3.5.2 Tier 1 Decisions

Tier 1 decisions are focused on who would receive the initial allocation of quota shares. The elements include allocating a percentage of the harvest shares to processors. The percentage allocated to processors is not defined, but the proposal indicates that a range of options should be considered. The program would need to define that percentage range before it is analyzed. Issuing harvest quota to processors is allowed under the MSA, so this portion of the proposal does not raise legal concerns.

A second option would allocate a percentage of the quota to the "community sector." As discussed in this document and in the June discussion paper the Council reviewed, allocations to the "community sector" may take on many forms. Additional detail must be provided if this alternative is included in the Council's options for a catch share program.

3.5.3 Other issues

No other issues have been identified for this proposal.

3.5.4 How Does the Proposal Address Council's Initial Goal of Providing Tools to Avoid/Minimize GOA PSC

The proposal focuses on who would receive the initial allocation. The tools for avoiding and minimizing PSC and bycatch would be determined by the structure of the overall program and not just the elements defined in this proposal.

3.6 Peninsula Fishermen's Coalition

3.6.1 Proposal Background

The Peninsula Fishermen's Coalition members represent the majority of the less than 60 feet LOA trawl vessels that are based in Sand Point and King Cove. These vessels fish Western Gulf pollock and Western Gulf Pacific cod when participating in groundfish trawl fisheries. This proposal focuses on management measures that regulate the less than 60 feet LOA vessels and are tailored to fit the needs of the Western Gulf small vessel fishery. However, some of the allocation and quota share use provisions apply to vessels that are 60 feet LOA and longer. The United Catcher Boats proposal was designed to address the concerns of the catcher vessels that are 60 feet LOA and longer.

The purpose of this proposal is to preserve the "small boat" trawl fleet that is based out of King Cove and Sand Point. In addition, the proposal recognizes the importance of hired skippers, crew jobs, and that the Pacific cod pot fleet may require protection if the trawl fishery is allowed to operate under a catch share program. The Council's motion does not include consideration of the Western Gulf Pacific cod pot fishery. However, Peninsula Fishermen's Coalition (PFC) believes that simultaneous implementation of Pacific cod catch share plans for both the trawl and pot fisheries would maximize the economic health of both sectors. The PFC notes that virtually the entire less than 60 feet LOA Western Gulf Pacific cod trawl fleet participates in the Western Gulf Pacific cod pot fishery, but many Western Gulf pot gear vessels do not trawl. They are concerned that implementing a catch share program for just the trawl sector may create a situation where trawl vessels could employ strategic behavior that would disadvantage vessel that only harvest Pacific cod with pot gear.

3.6.2 Tier 1 Decisions

3.6.2.1 What species are allocated by area

Western Gulf pollock and Pacific cod harvested by trawl vessels and pot vessels. The proposal does not indicate that other groundfish species or PSC species would be allocated. If catch shares are issued for the Central Gulf, subdivisions of the PSC species and some groundfish TACs would be necessary to divide the allocations between the Western Gulf and Central Gulf where do not currently exist.

3.6.2.2 How are the species allocated

The pollock and Pacific cod trawl allocations are determined using different criteria. Pollock quota shares are issued based on historic catch of the qualified vessel. A vessel must have made at least 10 deliveries of trawl caught pollock in the directed Western Gulf pollock fishery from 2000 through 2012. Eligible vessels will have quota share issued based on landings in the directed pollock fishery between 2000 through 2012 with options to drop 0 through 3 years of catch history. No vessel may own more than 5, 8 or 10 percent of the quota shares, with a grandfather provisions that allows a vessel to exceed these caps if they are initially allocated more than the cap. Skippers would be allocated 10, 15, or 25 of the quota shares earned by qualified vessels.

A vessel must have made at least10 deliveries of trawl caught Pacific cod in the directed Western Gulf Pacific cod fishery from 2000 through 2012 to be eligible to earn quota shares. Eligible vessels would be issued quota based on their percentage of landings in the directed Pacific cod fishery from 2000 through 2012. Options are also included that would allow each person to drop their lowest 0, 1, 2 or 3 years of landings history during that time period. Vessels owners would be limited to owning a maximum of 2 percent or 5 percent of the Pacific cod quota, with a grandfather provision for vessels initially allocated more than the limit. The owners of grandfathered vessels would not be allowed to acquire additional quota for those vessels. Skipper would be allocated 10 percent, 15 percent, or 25 percent of the quota issued to each vessel.

Pot vessels would be allocated Pacific cod quota based on their percentage of landings in the directed Pacific cod pot fishery from 2000 through 2012. Options are also included that would allow each person to count only their best years during the period. The exact number of years that could be dropped was not specified in the proposal.

3.6.2.3 To whom is the allocation issued

Quota shares would be issued to the owners of eligible vessels and assigned to the vessel that generated the qualifying catch history. Shares would also be issued to eligible skippers. Quota would be issued in three categories: (1) "A" shares to vessels less than 60 feet LOA; "B" shares to vessels that are greater than or equal to 60 feet LOA; and "S" shares to skippers.

3.6.2.4 Annual allocation type

IFQ would be issued to the vessel owners that hold quota shares. Persons issued IFQ determine how to fish their allocation without being required to join a cooperative.

3.6.2.5 Duration of the allocation

The duration of the allocation is not defined, but it assumed to be the maximum allowed under the MSA.

3.6.2.6 Transferability of fishing privileges

Issues related to the transferability need further definition. The makers of the proposal acknowledge that transferability rules will be important to meet the employment goals of this program. Transferability issues that are defined limit the transfer of skipper shares such that they may only be transferred to other skippers. Class A shares (small boat shares) may only be transferred to other small boats.

3.6.3 Other issues

It is extremely important to PFC that the small vessel fleet continues to thrive because it is the backbone of the King Cove and Sand Point communities. The small boat fleet is protected by the allocation of catch shares. To protect communities and processors, all shares of Western Gulf trawl caught pollock must be processed in King Cove, Sand Point, Akutan, or Dutch Harbor in same proportion as the average landings in a community between 2005 through 2012 or 2010 through 2012; Pacific cod must be processed in King Cove, Sand Point, or Akutan in same proportion as the average landings in a community between 2005 through 2012 or 2010 through 2012.

Cooperatives may be formed to manage individual vessel bycatch limits, gear requirements, and other measures that provide for efficient harvest with minimal PSC and bycatch. In this structure the cooperative is a tool that may be used by the fleet, but quota is not allocated to the cooperative.

Finally, the proposal requested that the Western Gulf/Central Gulf (620) boundary be moved from east from 159° W longitude to 157° W longitude for the pollock and Pacific cod target fisheries. The Council's initial discussions on this issue have signaled that moving the management line may not be appropriate as part of this specific action. If the Council considers moving the line, it could be analyzed in an amendment package specific to that issue.

3.6.4 How Does the Proposal Address Council's Initial Goal of Providing Tools to Avoid/Minimize GOA PSC

This proposal would provide the Western Gulf pollock and Pacific cod fleets with IFQ that could be fished at times and areas where PSC is minimized. Assuming that vessels are not allocated PSC, the ability of these fleets to manage PSC would occur within cooperatives. The ability of a cooperative to effectively manage PSC will be dependent on the number of cooperatives formed and how PSC is managed in other areas of the GOA.

3.7 Christopher Riley and Joseph Plesha

3.7.1 Proposal Background

This proposal was developed by Christopher Riley, Research and Development Manager at Trident Seafoods Corporation, and Joseph Plesha, Trident's Chief Legal Officer.

The document supporting this proposal lists three specific objectives for a rationalized Central GOA groundfish trawl fishery: (1) protect existing investments in the fishery already made by the owners of processing plants and harvesting vessels, while avoiding the creation of windfall benefits for either sector; (2) incentivize the avoidance of Chinook salmon and halibut PSC; and (3) promote economic growth in the community of Kodiak, while maintaining the social values and community stability provided by a healthy fishing industry.

The authors' supplement their proposed measures with a paper asserting that quota-based management will likely lead to consolidation in both the harvesting and processing sectors, and that some amount of the capital already invested will be stranded as seasons in the GOA groundfish fishery lengthen. They conclude that harvest quota must be allocated to the owners of both harvesting and processing capital in order to compensate those entities for the loss of productivity in some of their investments. The value of processors' investments will be capitalized in the value of harvest quota, and, if processors are excluded from receiving harvest quota allocations that value would be effectively expropriated from the processing

sector. The authors roughly estimate the amount of harvest quota that each sector would need to receive in order to be made whole, arriving at an amount less than 100 percent of the total quota share pool.

The proposal supports a system of harvest cooperatives, each linked to a processing facility; it provides detailed options for measures that could give harvesters some ability to switch between cooperatives. Several options are suggested for mechanisms that prevent processors from having to compete on price for deliveries to the point that all economic rents flow to the harvest sector.

The proposal suggests different PSC avoidance measures for Chinook salmon and halibut. The program would incentivize Chinook salmon avoidance by allocating a percentage of the pollock quota share pool – the part not allocated based on the need to compensate for consolidation under rationalization – contingent upon relative salmon avoidance performance. The incentive pool need only be applied to pollock quota in order to achieve PSC reduction goals because Chinook bycatch rates are significantly higher when targeting pollock as opposed to Pacific cod and other groundfish. By contrast, "total bycatch allocations" would be issued for halibut, essentially creating an IBQ system for halibut at the industry level.

Finally, the proposal notes that the community of Kodiak has made similar capital investments in supporting a limited access groundfish fishery, and also stands to see its assets underutilized and devalued in a rationalized fishery. The proposal calls for direct harvest quota allocation to the community, and also suggests that a percentage of any quota transfer taking place after initial allocation should be, in essence, taxed with a percentage of the transferred quota given to the community at the time of the transaction.

3.7.2 Tier 1 Decisions

3.7.2.1 What species are allocated by area

This proposal only considers allocating groundfish and bycatch quota in the Central GOA. The program would allocate harvest quota for pollock and Pacific cod.

The proposal calls on the Council to outline a plan to "proactively rationalize" the GOA flatfish trawl fishery as part of this program. The authors state that the flatfish fishery is, by definition, not overcapitalized since the fleet does not fully harvest flatfish TACs. Halibut PSC is the main constraint on harvest of flatfish, and improved utilization will require costly investment in fishing methods that reduce halibut bycatch rates. The proposal envisions beginning a period of flatfish catch history in the first year after Council action on groundfish trawl rationalization, and ending in the year before flatfish TAC is fully harvested or 2020, whichever is earlier. Issuance of flatfish quota after this period would incentivize and reward those who would invest in developing this fishery.

Though little detail is provided on the matter, the writers of the proposal state that they anticipate the issuance of total bycatch allocations (TBA) to "reduce the bycatch rate of halibut and pollock fisheries." Staff presumes this to mean that halibut PSC quota will be issued to each entity that received harvest quota for pollock.

3.7.2.2 How are the species allocated

The program would allocate the pool of quota for pollock and Pacific cod in a manner that compensates participants in the limited access fishery for current capital investments that are devalued as a result of consolidation under rationalization. The proposal does not specify what percentage of the quota pool would be necessary to accomplish this objective, but does note that the processing and harvesting sectors are equal partners in creating value from the fishery; the implication is that the two sectors would receive

roughly similar harvest allocations. The supporting paper estimates the total value of the primary fisheries and the amount of consolidation that could be expected once the fishery is rationalized[22], and ultimately speculates that 40 percent or less of the quota pool should be allocated to each sector. The proposal calls on analysts to examine the value of the current harvesting and processing investments in the fishery, and to estimate the value of the quota that would be created through rationalization; the authors note that allocating a sector more quota value than their present investments would constitute a windfall, and should be avoided.

As described in Section 3.7.2.1, above, flatfish quota would be allocated according to historical catch during a qualifying period that begins after the Council takes action on a GOA trawl bycatch management program.

For the pollock fishery and the flatfish fishery (once flatfish quota is allocated), a portion of the remaining quota pool would be allocated to quota holders on the basis of their relative Chinook avoidance. This portion of the quota pool is termed Chinook Avoidance Quota (CAQ).

The portion of any quota share pool that is allocated to the community of Kodiak – to compensate any losses it incurs through the rationalization – would be determined by the Council, but should aspire to reflect the devaluation in the community's investments in the public services and utilities that were necessary to support a limited access derby-style fishery.

3.7.2.3 To whom is the allocation issued

The proposal and supporting paper suggest that quota should only be allocated to participants whose investment in the fishery is captured in the value of harvest quota and expropriated through consolidation. Compensable assets are presented as those that are both durable and non-malleable, meaning that they cannot generate similar returns when put to other uses. Fishing vessels, processing capacity (e.g., blast freezer space), and municipal utility capacity are each examples of this type of capital. The authors suggest that it is not clear that human capital in the fishing industry is non-malleable.[23] As a result, the proposal includes allocations to the owners of capital, but not to fishing crew or members of the processing workforce.

The proposal notes that vessels are more malleable than processing facilities, as they can and do participate in other fisheries in other management areas. The authors introduce the argument that vessel owners who have, in other fisheries, received quota approaching the approximate value of their investment would be receiving a windfall or a double-compensation if they receive further allocations under a new rationalization program.

3.7.2.4 Annual allocation type

The proposal suggests quota be allocated to capital owners and the community of Kodiak in the manner of IFQ, but that pooling annual fishing privileges through processor-linked cooperatives is more likely to achieve PSC avoidance goals because "the government cannot reward industry participants on a timely basis for the avoidance of bycatch" (p.19). The proposal is not explicit about whether allocated bycatch allowance for halibut (TBAs) would function in the same manner as annual IFQ. Similarly, it is not clear whether Chinook Avoidance Quota (CAQ) in the pollock fishery – and eventually in the flatfish fisheries – would be redistributed on a yearly basis or on a longer timeline.

[22] The authors estimate the degree of consolidation based on the current length of the fishery (e.g., one month), and the potential length of the fishery if incentives to race are eliminated (e.g., eight months).
[23] In this case, human capital is thought of as the specialized skills that allow a person to earn a greater income in the fishing industry than he or she would in another industry.

3.7.2.5 Duration of the allocation

The proposal does not address the issue of duration of fishing privileges. It is assumed that the intent of the makers of the proposal is to issue fishing privileges for the maximum amount of time (10 years) allowed under the MSA. It is also assumed that the fishing privileges would be renewed unless the Council took action to modify or revoke the privilege.

3.7.2.6 Transferability of fishing privileges

The proposal indicates that quota shares and annual fishing privileges are transferable, and no specific restrictions are mentioned. It is not clear, however, whether halibut bycatch quota (TBA) can be transferred, either within a cooperative or on an open market.

According to the authors, the level of overcapitalization in the GOA groundfish trawl fishery is substantial, and caps on vessel and plant consolidation will be required in order to maintain a level of participants anywhere near the status quo. The proposal does not explore what these consolidation limits might be.

3.7.3 Other issues

The proposal discusses three structures for processor-linked cooperatives that could potentially maintain economic balance between vessel and processing plant owners. First, cooperatives could entail a permanent linkage between a processor and its cooperative member vessels. This would be analogous to the Rockfish Pilot Program in the Central GOA. Because this structure sets up what the authors identify as a "bilateral monopoly," economic forces alone would not determine an efficient ex-vessel price; rather, the sector that ends up with the majority of economic rents under rationalization would be determined by factors like negotiating skill. Second, vessels could be free to change cooperative affiliations after spending a period of time in an open access groundfish fishery. This would be analogous to the AFA pollock fishery in the Bering Sea. The authors note that vessels leaving their cooperative could join with other vessels in the open access fishery to form a new cooperative, thereby suffering no cost from leaving their original processing partner. Third, the authors propose a program where a vessel owner would have to leave behind some of the quota assigned to that vessel if it chooses to move to a new cooperative. If the goal of the program is to divide rents equally between the processing and harvesting sectors, then the "leave behind" should be on the order of half of the quota associated with vessel exiting the cooperative.

3.7.4 How Does the Proposal Address Council's Initial Goal of Providing Tools to Avoid/Minimize GOA PSC

The proposed program addresses halibut PSC in a fairly straight forward manner; the total allowable amount of halibut bycatch would be allocated – presumably by directed fishery – and quota holders would be individually accountable for managing their catch. The proposal does not specify whether processors would also receive halibut TBA, but staff presumes that if they do then they would be responsible for making it available in the appropriate amount for the vessels on which their harvest quota is fished.

Regarding Chinook salmon PSC, the proposal suggests that there are enough potential salmon "savings" available in the directed pollock fishery – which accounts for around three quarters of Chinook PSC in the GOA groundfish trawl fishery – for a reduction in that fishery to substantially affect the trawl fleet's bycatch impact. This would be accomplished through a quota incentive program, where some percentage of the pollock quota share pool is re-allocated based on relative PSC avoidance. The proposal is not

specific about the frequency of CAQ reallocation, or what kind of appeals burden this may place upon the Agency.

3.8 United Catcher Boats

3.8.1 Proposal Background

This proposal was developed by United Catcher Boats, which is a trade association representing trawl catcher vessels over 60 feet LOA that operate in the Western GOA. Noting that the Peninsula Fishermen's Coalition has made a proposal for the under 60 feet LOA Western GOA catcher vessel fleet, the elements presented here are meant to apply only to the "over 60" sector.

The proposal presents two program alternatives, both with the goal of providing the over 60 feet LOA Western GOA CV fleet with regulatory stability in addressing PSC and bycatch. One alternative would establish a catch share system based on membership in cooperatives. Vessels would have the choice to opt out of the catch share program and fish in an open access pool. The elements of this program alternative are modeled after the West Coast Whiting Mothership CV cooperative's Bycatch Management Agreement, and the Bering Sea AFA fishery's Chinook salmon incentive plan agreement (IPA) for catcher/processors; these elements would seem to be applicable to other GOA trawl sectors if the Council selected this type of approach. The other alternative is to allocate pollock and Pacific cod to the entire sector and allow qualifying LLP holders to fish in a limited access format, with no individual quota; the sector would be constrained by a shared hard cap on halibut and Chinook salmon PSC.

3.8.2 Tier 1 Decisions

3.8.2.1 What species are allocated by area

Under either of the two alternatives, the proposal calls for the allocation of pollock and Pacific cod in the Western GOA. Allocating flatfish and secondary species is not discussed.

The catch share alternative would include individual bycatch allocations of halibut and Chinook salmon. The limited access alternative would include a sector-level allocation of halibut and Chinook PSC that would then be treated as a shared constraint, similar to the current model of GOA PSC management.

3.8.2.2 How are the species allocated

The catch share alternative would allocate pollock and Pacific cod to CVs greater than 60 feet LOA that hold valid Western GOA LLP endorsements according to catch history over a set of qualifying years. The proposal lists three options for qualifying periods:

1) 2000 – 2012
2) 2000 – 2011
3) 2000 – 2006

No rationale is provided for the first two proposed historical periods; the third option is the same set of years used in the LLP recency action (GOA FMP Amendment 82). For whichever time period option is selected, the Council could choose to allow one, two, or three "drop years."

If the Council should choose a limited access approach for this sector, the proposal suggests that the allocation should be determined on the basis of the same catch history years used for the under 60 feet LOA Western GOA CV sector. While not explicit, staff assumes that the sector's annual harvest privilege would be determined by the percentage of the entire Western GOA CV fleet's qualifying harvest that is

accounted for in the over 60 feet LOA sector history. This alternative would effectively freeze the relative share of total Western GOA CV harvest for each size-based sector at the percentage determined by the selected historical period.

The basis for determining the amount of halibut and Chinook salmon allocated to the over 60 feet LOA Western GOA CV sector – to be shared under limited access or further allocated under catch shares – is not specified.

3.8.2.3 To whom is the allocation issued

If pollock, Pacific cod, and PSC are allocated in a catch share program, the quota would reside with the individual owners of eligible CVs.

3.8.2.4 Annual allocation type

Under the catch share alternative, annual allocations of harvest privileges and PSC allowances would be made through cooperatives. In essence, a vessel could only access annual IFQ or IBQ by joining a co-op. Presumably, the harvest associated with allocations to vessel owners who opt not to join a co-op would be pooled in an open access fishery. Initially, each CV's share of the cooperative's annual quota – as determined by the combined QS holdings of its members – would be in line with the amount of QS that the individual brought into the co-op.

3.8.2.5 Duration of the allocation

The proposal calls for allocations to be "perpetual, based on MSA LAPP provision[s]." Staff assumes that this is meant to reflect the maximum duration allowed under MSA, where quota is issued for 10 years, and would be renewed by default unless the Agency took action to modify or revoke the privilege. The proposal also highlights the MSA requirement of a program review five years after implementation.

3.8.2.6 Transferability of fishing privileges

The proposal provides details on the limited transferability of both quota shares and annual harvest/bycatch privileges under the catch share alternative. Permanent quota share transfers must remain within the same sector, where "sector" is assumed to mean over 60 feet LOA and under 60 feet LOA Western GOA CV groups. Annual privileges are freely transferable within cooperatives. Annual harvest and bycatch quota may also be transferred between the two length-based sectors, presumably in cases where a cooperative in one sector does not plan to use all of its harvest or bycatch for that year, and a cooperative in another sector either wishes to harvest additional target species or needs to cover a PSC overage.

QS transfers are limited by a vessel-level ownership cap, set at either 20 percent, 25 percent or 30 percent of the sector's total quota share pool. Transfers of annual quota (leases) are limited by a vessel-level use cap, set at 30 percent, 40 percent or 50 percent of the sector's total annual harvest privilege.

3.8.3 Other issues

The program would structure cooperatives around the Western GOA processors to which catch is delivered. Co-op member vessels would be required to have an annual agreement with a processor by a given date in the preceding year. When the program is first implemented, vessels will initially be committed to a processor based on their historical delivery patterns, with the number and selection of qualifying years to be determined as the program is developed.

CVs could move to a different processor (cooperative) after fishing for one year in the open access fishery, or if the processor with which it is currently affiliated agrees to release the vessel from its delivery requirement. Individual processors would be capped by a maximum percentage of the sector's total deliveries that it could receive. The proposal suggests setting the processor cap at 30 percent or 40 percent of the quota pool, though a processor receiving more than 40 percent at the time of implementation could be grandfathered in at its current level.

3.8.4 How Does the Proposal Address Council's Initial Goal of Providing Tools to Avoid/Minimize GOA PSC

The catch share alternative addresses PSC minimization through cooperative management tools. The proposal suggests that cooperative bylaws would require vessels to relocate from areas of high PSC encounter rates, and would give cooperative managers the authority to close "hot spots" both before and during the season. Cooperatives would have the ability to create seasonal pools of the target and bycatch species for which they manage quota, and to enact individual vessel bycatch incentives for their members. The proposal references bycatch management measures that have been used under the cooperative structure within other fisheries. For example, to buffer against overages, a co-op may initially withhold a percentage of its available annual PSC to be used only in years of high bycatch encounter. Co-ops could also begin selectively applying constraints to members with higher bycatch rates once the co-op reaches a pre-determined percentage of its annual cap, thereby incentivizing member vessels to extend their own fishing season by fishing more cleanly.

The limited access alternative would use a hard cap to control PSC levels, but would not set up any mechanisms to incentivize bycatch below the cap level, nor would it promote flexibility, cooperation or information sharing among sector participants.

4 State Waters Issues

4.1 Background

State waters management issues were presented to the Council in the June 2013 discussion paper. Some of the discussions in that paper included the interrelationships between Guideline Harvest Level (GHL), parallel, and Federal fisheries management programs; a description of the historical GOA trawl pollock and Pacific cod fisheries; the potential for establishing restrictions on Federal permits being held by persons fishing in State waters; and Alaska State Constitution limitations on granting exclusive rights or special privileges to persons fishing in the natural waters of the State.

Additional information is presented here to build upon the June paper and provide a more refined discussion of the decisions that are required from the federal perspective. However, federal management decisions are likely dependent on related actions by the State of Alaska, for the program to function as both management agencies intend.

There are several decisions that must be made in regard to State waters management, if state waters are to be open to fisheries for which a catch share program is in effect in federal waters. This is being pursued recognizing that significant portions of some trawl fisheries (e.g., WG and CG pollock) currently occur in the parallel fisheries in state waters and parallel fisheries management is no longer functional if a catch share program is in effect in federal waters. Some the decisions fall under State of Alaska authority and others under federal authority. Decisions that fall under State of Alaska authority include: determining whether there will be a State fishery (species and area), the amount of fish that may be harvested, the

management measures for that fishery, and the catch accounting of the harvest. Decisions that the Council could make include setting the appropriate TAC in federal waters, placing limitations on the activities of vessels that hold a Federal Fisheries Permit (FFP) or persons who hold quota, and how various categories of catch are counted against a person's federal quota.

4.2 Fishery Development Decisions

Decisions necessary to address State waters are discussed in this section. The intent of this section is to lay out a general decision process and discuss issues that allow the Federal and State fisheries to function with minimal disruption if the Council/Secretary of Commerce moves ahead with a catch share system in the GOA trawl fisheries.

Some issues associated with the development of a catch share program and its relationship with State waters that are not addressed in this paper because the Council has not yet determined the structure of the program. For example, this paper does not consider whether historic catch in State waters count towards a person's federal quota share catch history. It is assumed that issues like this will be discussed at a later time, as they become more relevant Council decisions.

4.2.1 Will there be State managed fisheries

The first decision that must be made is to decide whether there will be State managed fisheries for the relevant trawl species that occur in State of Alaska waters. This decision must be made by the State of Alaska, based on their authority. The June 2013 discussion paper (NPFMC 2013) pointed out the difficulties associated with the management of "parallel" fisheries in State waters when adjacent Federal fisheries are managed using a catch share system. Parallel fisheries are typically managed by the State applying the same general management measures imposed on a Federal fishery to the adjacent State waters fishery. Both fisheries are closed when the shared quota is taken. If the Federal fisheries management structure changed to a catch share system that allocated quota to persons, the fishery would close to persons fishing under the Federal program when their allocation was harvested. Under a parallel fishing structure, there would not be single closure date that would be set for the Federal fisheries. As a result, there would not be a parallel closure date that could be applied to the State portion of the fishery. Moving to a catch share program in the Federal fishery does not allow the parallel fishery structure to function properly, compared to status quo management under limited access. Therefore, the remainder of this discussion assumes that State managed fisheries would be patterned after the GHL fisheries and not the parallel fishery structure.

If the State determines that they do not want to implement and manage trawl fisheries in their waters, then the State could explicitly prohibit these fisheries in state waters, and/or the Council could develop a "GOA Trawl Bycatch Management" program and persons with sufficient quota would be allowed to fish only in federal waters.

If the State decides to develop new GHL trawl fisheries in the GOA, in light of an understanding that parallel management will no longer function as intended, then the federal policy makers should account for those fisheries to ensure the federal program functions properly. To achieve this objective, State and Federal policy makers should coordinate their management structures. This paper makes some assumptions about how the Federal and State fisheries would work together as well as assumptions about the structure of a federal program, alternatives for which have not yet been approved:

- If the State develops new GHL trawl fisheries in the GOA, NMFS would deduct the GHL amount, or a pre-season estimate of the GHL harvest, from the apportionment available to the

federal trawl QS holders. For example, in the Pacific cod fishery, the GHL trawl fishery (or fisheries) amount would be deducted from the Federal allotment of Pacific cod to the trawl sector harvesting from federal waters adjacent to the GHL fishery. The hook-and-line and pot allocations would not be adjusted to account for the GHL trawl fishery for Pacific cod. This assumption is not necessary for pollock, because it is not allocated by gear type used in its harvest.

- The discussion in this section assumes that GHL target species and PSC species are allocated in the Federal catch share program. If the Council's program only allocates PSC species, then slight modifications must be made to the catch accounting system described in this section. However, the same general principles would apply. This issue is discussed in more detail in Section 4.2.3.

The first assumption is a general catch accounting issue the Council will need to address as it moves forward with this program. The second assumption is necessary because the Council is still in the formative stages of the proposed program. As the program is better defined, the approach needed to address state water management can be defined more explicitly.

4.2.2 Catch accounting

One of the most formidable problems facing policy makers from the State and Federal government is how, under existing authorities, to account for harvest taken by participants in a federal quota program from an adjacent GHL fishery, to ensure that the two fisheries combined do not harvest too many (exceed ABC) or too few (not achieve OY) fish. This section describes some potential accounting methods and presents the beneficial and detrimental effect that each structure could have on the achievement of policy objectives when the GHL target species are also allocated in a Federal catch share program occurring in adjacent waters. The intent is to provide the Council with an update on potential ways to account for catch that could be discussed and considered by the Board of Fisheries.

Option 1

The following structure seems to eliminate most catch accounting problems, but would require significant coordination between Federal and State accounting programs. Federal fisheries managers would issue quota to persons at the beginning of the year. A person that holds quota would be required to hold or have access to sufficient quota to cover all of their catch in State or Federal waters[24]. NMFS would deduct all of the harvest from their available quota at the time the fish are landed. If the harvest occurred in a State water GHL fishery, NMFS would deduct the catch from the person's federal quota but the State would not deduct the target catch from the GHL. It is assumed that the State would not set PSC limits in their GHL fishery. Only State water harvests by persons that do not hold federal quota at the time the landing is made would be deducted from the GHL[25]. When the GHL is taken, state waters are closed to all participants, and those with remaining federal quota must fish in federal waters. This structure accomplishes two objectives:

[24] This scenario would also hold if IBQ was also allocated in the federal fishery. The results are also shown in Table 4-1, but the TAC discussion would be replaced by quota held.

[25] Those with federal quota that see an advantage to fishing in state waters because of that is where aggregations of pollock are will still compete to harvest fish in state waters even if it comes off their federal quota.

1) Persons that hold quota cannot circumvent[26] the intent of the federal quota limits by fishing in GHL fisheries prior to harvesting their own allocation.
2) NMFS would know the GHL amount that would be deducted from available ABC prior to setting the quota and issuing catch shares. This means that total harvest is equal to GHL plus the federal quota issued. By having no overlap in the GHL catch accounting and the quota catch accounting, the issues of over or under harvesting the total amount of fish available are greatly reduced.

This structure would require substantial federal and state coordination to ensure that landings made in a state GHL fishery are deducted from the appropriate allocation (federal quota accounts vs GHL). The current eLandings system in place for groundfish provides data to both the federal and state groundfish managers. The Interagency Electronic Reporting System (IERS), also known as eLandings, is an interagency project involving the three agencies that manage commercial fisheries in Alaska: Alaska Department of Fish and Game (ADF&G), National Marine Fisheries Service, and the International Pacific Halibut Commission. Commercial seafood processors are required to report data on seafood harvest to these agencies using a single reporting tool. Information entered by the processor is then distributed to the appropriate persons in "real time". The eLandings program provides the tool and the vehicle to allow the necessary coordination between NMFS and ADF&G. Information collected should allow managers of a GHL fishery and a quota program to determine which catch should be deducted from each program's harvest limits. Additional discussions will be required during the development of this Council action with the eLandings administrators to determine what, if any, programing changes are necessary. However, the implementation of any catch share program would require modifications to the eLandings system to ensure landings are deducted from the appropriate quota holdings. An outstanding question is the marginal change in cost to account for GHL management in the eLandings system. Additional information on this question will be provided as the program's structure is developed.

Other accounting issues that federal managers must account for are dependent on the catch share program that is implemented. Under an IFQ program, like halibut and sablefish, each person owns, controls, and harvests their quota. They are required to have sufficient quota before the trip to cover their harvest. An IFQ type of management system is relatively straight forward from an accounting standpoint. If the Council were to recommend a catch share program that includes cooperative structures (like AFA or Amendment 80), the accounting system becomes somewhat more complicated from the federal perspective. Under a cooperative structure the Council and NOAA Fisheries would need to define rules for use of quota before members of a cooperative may enter a GHL fishery. As provided in the previous example, the Council could consider requiring any catch by members of a cooperative to be deducted from the cooperative's quota, whether it occurs in state waters (when a GHL fishery is open) or in federal waters. Accounting for quota harvest as described would prevent persons in a cooperative from harvesting their combined allocation on a few member vessels in federal waters while allowing other cooperative members to participate fully in a GHL fishery. In aggregate, absent such accounting, this behavior would potentially allow the cooperative to expand their harvest.

Under a cooperative system, a check-in/check-out requirement may be necessary. When the cooperative has completed its participation in a directed fishery for the year, it could notify NMFS and ADF&G that it is their intent to check-out of the target fishery for the year (or season if appropriate). At that time its members could be allowed to enter the GHL fishery if it is still open. Once checked out of a target fishery, a cooperative would not be allowed to check back into that fishery for the reminder of the fishing year (or season). The check-out alternative would allow a cooperative to leave a directed federal fishery

[26] This statement is based on the understanding that persons holding quota would have a strong incentive to fish in a GHL fishery if it did not count against their quota in the Federal fishery; and it is not the Council's intent to propose regulations that would exacerbate the race for fish in a State GHL fishery.

while some quota is still available. Regulations developed for cooperatives operating in a quota catch share program prohibit cooperatives from exceeding their allocations. As a result, cooperatives typically leave a small amount of quota unharvested to avoid exceeding their allocation and incurring penalties. The check-out option allows the cooperative to determine the appropriate time to end a directed fishery for the year, based on their level of risk aversion. Without this option cooperative members would either never be allowed to participate in the GHL fishery or incur a greater risk of exceeding its cooperative allocation for a species. Allowing a cooperative to check-out of a fishery would also allow cooperative members to enter a GHL fishery if other quota (perhaps PSC) is a constraint, and not the target species. The Council may wish to consider if this behavior meets its intent.

Option 2

The second possible structure would deduct all catch taken by a quota holder from their federal allocation, and any of that catch in State waters would be deducted from the GHL. This option differs from the first, because the State would not differentiate between harvests made by persons holding quota and those that do not. A problem associated with this method is that NMFS may need to account for how much of the GHL would be harvested by persons holding quota at the beginning of the year, in order to avoid potentially under harvesting the TAC. Federal participants' harvest would be double-counted (counted as a removal by both ADF&G and NMFS) and depending on the magnitude of the removals in state waters, could result in the OY not being achieved. To reduce the impacts of the double-counting, NMFS could either: 1) estimate the amount of double-counted fish at the beginning of the year before the federal catch shares are allocated and increase the catch shares by that amount, or 2) calculate the double-counted fish in the eLandings system and adjust catch share amounts sometime during the year after the GHL closes. The first option would require NMFS to be conservative (underestimate the amount of double-counted catch) in its estimate, especially for species like pollock where the ABC has historically been set equal to the TAC. In that case, underestimating the double-counting means that the quota is increased less at the beginning of the year to ensure that ABC is not exceeded. This option may also result in the ABC being exceeded if NMFS' estimate was not sufficiently conservative, it would be problematic under the ACL rules and the MSA. Alternatively, NMFS could account for the double-counted fish after the GHL fishery is closed. This would require NMFS to calculate the amount the quota should be adjusted based on harvest data and not pre-season estimates. ABC would not be exceeded and OY could be achieved, but it would require a reallocation of quota at some point during the year. Reallocating that IFQ would increase the burden on NMFS, increase uncertainty in the fleet, and require additional decisions regarding how the available fish should be allocated. NMFS would likely wish to avoid reissuing quota during the year. However, the Council could consider the following options if within-year allocations are part of the program:

- divide the additional available IFQ among all QS holders;
- divide the available IFQ among QS holders that had acceptable PSC rates;
- allocate to cooperatives;
- allocate based on an adaptive management program somewhat like the 10 percent set-aside in regulation for the West Coast Trawl fishery.

The West Coast adaptive management program is defined in regulation at § 660.140 (l). The program has a set-aside of 10 percent of the non-whiting QS. Those QS are held by NMFS and the resulting annual quota is currently issued to all QS permit owners in proportion to their non-whiting QS. This distribution will continue through 2014 or until alternative criteria for distribution of the annual quota is developed and implemented, whichever is earlier. After the alternative criteria are developed, the annual quota that results from the QS could be used to address community stability, processor stability, conservation, unintended/unforeseen consequences of IFQ management, or facilitating new entrants. The adaptive

management program -- actual use of the annual quota and who will receive the allocation (if not existing participants) has not been implemented.

Given that the annual allocation would not be known at the beginning of the fishing year, any adaptive management program would need to be based on a within-year allocation and the allocation amount would not be known until the GHL had closed to fishing. Additional work would be required to develop this type of program if it were included in the Council's plan. However, the cost and complexities of this program structure make the program less appealing from a management perspective than the first option discussed.

Option 3

A third option would be for ADF&G to deduct all State waters harvests from the GHL, and harvests from federal waters would be deducted from the federal quota holder's allocation. One of the problems with this accounting system is that it would encourage quota holders to start fishing in State waters when the GHL fishery is opened, because that catch would not be deducted from their federal quota holdings. After the GHL was taken, these quota holders could move into federal waters and fish until their quota is harvested. Persons who do not hold quota – who only fish in the GHL fisheries – would be required to stop fishing when the GHL fishery closed. These persons would likely realize greater competition in the GHL fisheries, as a result of federal quota holders taking advantage of an 'open access' fishery. This outcome does not seem to meet the objectives of the program being considered. Especially if the race in the GHL fishery results in increased PSC that might not be counted against the current PSC limits in place for federal fisheries in the GOA.

4.2.3 Catch Accounting under an IBQ program

The previous section was based on the assumption that target species (at least for the same species allocated under a GHL fishery) are allocated under a federal catch program. This section presents a brief discussion of catch accounting that could be implemented if the federal program allocates PSC species and GHLs are set for target species. Given the traditional GHL fisheries, it means that pollock and Pacific cod would not be allocated to persons under the Federal program.

Issues associated with excluding primary target species that are not constrained by PSC from the catch share program have been discussed by the Council and stakeholders at past meetings. This is included as an allocation method in one of the eight written proposals the Council will review at this meeting. The merits of a PSC only allocation are not presented in this paper. Instead, the discussion focuses on how a PSC only allocation[27] effects management of the Federal and State fisheries.

The accounting option where the State of Alaska only deducts harvest from the GHL when the person does not hold federal quota (IBQ) could be applied to an IBQ program. In this case, the person would be required to hold sufficient IBQ to cover any PSC taken in the directed fishery. Target species harvested from State waters would be deducted from the Federal TAC and not the GHL. If the person utilized all their IBQ or the cooperative checked-out of a fishery because they no longer wished to participate in the Federal fishery, their State waters harvest of the GHL species would be deducted from the GHL. This accounting system is presented in Table 4-1. The results indicate that IBQ holders cannot extend their IBQ by fishing in State waters while they still hold quota. It also means that they cannot harvest from the GHL while their IBQ is still being used. Depending on how the IBQ is allocated by target fishery, this may mean persons would no longer use their IBQ holdings for a specific directed fishery or for all groundfish fisheries. Because IBQ could be allocated for a specific area, or subset of areas, it may also

[27] Or a PSC allocation with only pollock and Pacific cod allocated.

mean that a person has finished fishing groundfish in federal waters of the Western Gulf and Central Gulf, one of the areas, or Gulf-wide. These decisions have yet to be made.

Table 4-1 Catch accounting when quota holders' harvest in State waters is deducted from the TAC and PSC is deducted from their IBQ

Harvest	IBQ	Primary Species	Result
Federal Waters	All PSC deducted from IBQ	Deducted from TAC	There no incentive for a person that holds IBQ to fish in State waters when open, unless it is more economically efficient. No double counting.
State waters (Person holds IBQ)	PSC deducted from IBQ	Deduct from TAC	
State waters (Person does not hold IBQ)	Not counted against IBQ allocation	Deduct from GHL	

Another option is that the State of Alaska could deduct all groundfish catch taken from State waters from the GHL, regardless of whether the person holds quota (IBQ). IBQ would not be deducted from State waters landings. Catch from Federal waters would count against the IBQ a person holds and their groundfish harvest would be deducted from the TAC. This option assumes that persons holding IBQ would be allowed to enter the GHL fishery before their IBQ was exhausted for the year. A result of this system is that IBQ holders would have an incentive to enter the GHL fishery and save their IBQ for the Federal fisheries. This behavior would increase competition at the beginning and throughout the open access GHL fishery. After the State fishery closes, IBQ holders could utilize their quota to harvest fish from Federal waters. The negative impacts realized by persons that participate in the GHL fishery, but do not hold Federal quota, would depend on the amount of fish that is allocated to the GHL fishery. Since currently all of the people that fish in the Western GOA (see Section 4.2.4) trawl fishery also hold an FFP, increasing the GHL will move pollock from the quota program to the GHL fishery where they currently do not operate under a Chinook salmon limit and they would compete in an open access race for fish.

Table 4-2 State water harvests deducted from GHL and PSC catch does not count against a person's IBQ holdings

Harvest	IBQ	Primary Species	Result
Federal Waters	All PSC deducted from IBQ allocation	Deducted from TAC	Depending on the accounting system there could be incentive for a person that holds IBQ to fish in State waters to save IBQ and TAC. Persons not holding IBQ have more competition in GHL. No double counting of catch.
State waters (Person holds IBQ)	Not counted against IBQ allocation	Deduct from GHL	
State waters (Person does not hold IBQ)	Not counted against IBQ allocation	Deduct from GHL	

Table 4-3 describes a scenario where all State water target catch is deducted from the GHL, but IBQ holdings are deducted from a person's IBQ holdings. This option creates an incentive for person to fish in State waters to extend the amount of primary species held. In this case we are assuming the primary species is Western Gulf pollock. The incentives will be greatest for persons whose Federal fisheries are not limited by PSC. For example, the amount of PSC a person is annually allocated is sufficient to cover their pollock and Pacific cod target fisheries and they do not intend to expand effort into flatfish fisheries.

Table 4-3 State water harvests deducted from GHL and PSC catch deducted from a person's IBQ holdings

Harvest	IBQ	Primary Species	Result
Federal Waters	All PSC deducted from IBQ allocation	Deducted from TAC	There is incentive for a person that holds IBQ to fish in State waters when open to save TAC if limiting. Persons not holding IBQ could have more competition in GHL. No double counting.
State waters (Person holds IBQ)	PSC deducted from IBQ allocation	Deduct from GHL	
State waters (Person does not hold IBQ)	Not counted against IBQ allocation	Deduct from GHL	

The final scenario discussed would deduct the primary species catch from State waters, by an IBQ holder, from the TAC but would not deduct PSC from IBQ. Persons that are limited by PSC would be more likely to fish in the State GHL fishery when it is open. They could generate revenue from GHL harvests without using their IBQ. Because IBQ may constrain their target harvest in the Federal fisheries, implementing strategies to minimize IBQ usage would be anticipated. This accounting system, where primary species are deducted but not IBQ from the Federal quota, may only make sense if observer coverage rates in the GHL are insufficient to determine IBQ usage in State waters.

Table 4-4 State water harvests of PSC deducted from IBQ primary species are deducted from the TAC

Harvest	IBQ	Primary Species	Result
Federal Waters	All PSC deducted from IBQ allocation	Deducted from TAC	There is incentive for a person that holds IBQ to fish in State waters when open to save IBQ. Persons not holding IBQ have more competition in GHL. No double counting.
State waters (Person holds IBQ)	PSC not deducted from IBQ allocation	Deduct from TAC	
State waters (Person does not hold IBQ)	PSC counted against IBQ allocation	Deduct from GHL	

4.2.4 State waters fisheries that account for a large percentage of the total catch in an area

The Council requested that the analysts describe some of the issues associated with developing a federal quota program in an area where, historically, much of the harvest occurred in State waters. For example, information presented in Table 4-5 indicates that in the Western Gulf from 53.3 percent to 73.8 percent of the pollock fishery was annually harvested in State waters (2009 through 2012).

Table 4-5 GOA pollock and Pacific cod harvests from State waters (2009 through 2012)

Area	Waters	Year			
		2009	2010	2011	2012
		Pollock			
CG	Federal	14,799	34,394	50,246	56,254
	State	8,594	10,908	5,341	12,667
CG Total		23,394	45,302	55,587	68,921
CG State % of Total		36.7%	24.1%	9.6%	18.4%
WG	Federal	4,461	11,929	9,894	7,441
	State	9,956	16,492	11,292	20,985
WG Total		14,417	28,421	21,186	28,425
WG State % of Total		69.1%	58.0%	53.3%	73.8%
		Pacific cod			
CG	Federal	5,881	14,688	10,916	12,521
CG Total		5,881	14,688	10,916	12,521
CG State % of Total		0.0%	0.0%	0.0%	0.0%
WG	Federal	1,948	1,652	2,411	5,685
	State	50	191	103	646
WG Total		1,998	1,844	2,514	6,331
WG State % of Total		2.5%	10.4%	4.1%	10.2%

There are specific decisions that must be made for a GHL program to be implemented. The outcome of those decisions may affect stakeholder's perspectives on whether a quota share system, which replaces the current limited access system and the parallel system in state waters, based on a fraction of the total fish available would warrant the cost and effort and be preferable to the status quo. It is likely that stakeholder's perspectives will be influenced by the size of the GHL relative to the Federal quota, the accounting system for State water harvests, the structure of the Federal program, and the pool of historic participants and potential new entrants into the GHL fishery.

4.2.4.1 Size of the GHL

If the State of Alaska develops a Western Gulf GHL trawl pollock fishery it must determine the GHL amount. Historically GHLs have been set as a percentage of the area's ABC. In the Western Gulf pollock fishery, the TAC is currently set equal to the ABC. Assuming this practice continues in the future, the percentage of the ABC selected by the State would result in an equal reduction to the amount of fish available to the federal fishery.

The previous section described the impacts of various accounting methods on the GHL and federal fisheries. To simplify this discussion, the following assumptions are made based on the earlier accounting methodologies presented:

- Harvest that occurs in State waters is deducted from a person's Federal quota if they hold quota for that species;
- Harvest that occurs in State waters is deducted from the GHL if the persons harvesting the fish do not hold Federal quota or their cooperative has checked-out of the target fishery (State management decision).

If the assumptions above were implemented, State water harvests would only count against the GHL when the persons harvesting the fish did not hold quota. That means the person was never issued quota or had already used the entire quota amount they were issued in federal waters. Based on 2012 data for the Western Gulf, every person that harvested pollock from State waters with trawl gear also held a Federal

Fisheries Permit. It is possible, depending on the qualification criteria developed by the Council, that all these participants would be allocated Western Gulf pollock quota (either as IFQ, to a cooperative, or some other program design). If the State sets the GHL at a level that was based on all historical harvest in state waters, the federal quota allocated to the persons would be reduced. If persons receive catch history credit for federal quota for harvests that occurred in state waters, the State may wish to consider this when setting the GHL. Deducting that harvest amount from the GHL would reduce the GHL size, relative to using all historic harvests in State waters. If harvesters are given harvest credit towards their quota calculation for catch that occurred in State waters that amount is deducted from total historic harvest when setting the GHL, the GHL may be relatively small but could provide a limited entry level opportunity for persons that did not receive federal quota or their allocation was relatively small.

Persons that were allocated relatively small amounts of pollock could fish their quota and then enter State fishery to effectively increase their pollock harvest. Their ability to implement such a strategy is dependent on the size of the GHL and new entry into the State fishery. If the GHL is relatively large and the fishery starts with relatively small amounts of effort, it may be worthwhile for the person to hurriedly fish their quota in federal waters, to then enter the GHL fishery. If the GHL is relatively small and the amount of effort in the fishery could result in the GHL being taken before or shortly after the quota holder enters the fishery, the person has less incentive to harvest their entire quota allocation at the start of the year. It may be more prudent for persons to hold their quota until the roe is at its peak value, to generate more profit from the quota they are allocated.

4.2.4.2 Structure of the Catch Share Program

The structure of the catch share program will also factor into whether stakeholders support a program where a substantial amount of the harvest occurs in a GHL fishery and there is no exclusive access to a portion of the TAC in state waters. Catch share programs that allocate long-term fishing privileges (up to 10-years under the current MSA) allows recipients to capitalize the value of those shares. That value can then be used to access funds to improve the efficiency of the current vessel or purchase permits to expand in other fisheries. The CDQ program provides an example of a fishery where about 10 percent of the available quota was allocated and the recipients have been able to utilize their profits to successfully expand their participation through vessel and permit purchases. While the value of the quota in the Western Gulf pollock fishery is a fraction of the value of the Bering Sea pollock fishery, the increased asset value could be utilized is a similar manner. The value of the shares could be capitalized to purchase permits (i.e., salmon, herring, or groundfish LLPs) or expand into other groundfish fisheries using their current vessel and permits.

Alternatively, the program could be structured to reduce the capital value of the allocation. If the value of the underlying quota was not held by the person receiving the annual allocation they would be unable to capitalize the long-term profit stream of that quota. Depending on the leasing provisions the quota holder could generate profits from the annual allocation. In addition, the increased uncertainty associated with future annual allocations and the lack of long-term quota for collateral will limit a person's ability to leverage the allocation. This may result in a quota program with a relatively small federal allocation receiving less support from current stakeholders.

4.2.4.3 Fishery Timing

A person's ability to hold quota in the Western Gulf pollock fishery may provide the ability to increase roe value through the timing of harvest, depending on the catch accounting rules imposed. Pollock roe matures in the late winter and early spring. Harvesting roe when it is at its highest quality can increase the value that can be generated at the ex-vessel, wholesale, and retail markets. Under the current LLP management structure, when the fishery is opened to directed fishing on January 20th, vessel operators

face pressure to start fishing or risk forgoing harvest in a competitive environment. Agreements between GOA harvesters to delay fishing have met with limited success. During years when biological conditions result in the roe not being mature early in the fishing season, the fleet may harvest all or most of the pollock before the roe attains its greatest value. If persons were issued quota that could be held until the pollock roe is mature, it could allow the pollock harvest to be timed to generate greater value. This may make a federal program worthwhile to participants, even if the portion of the TAC allocated to individuals or cooperatives is substantially reduced by a GHL fishery (e.g., quota holders are issued a smaller percentage of the Western Gulf pollock ABC).

However, depending on the catch accounting system used, quota holders would need to weigh the value of fish forgone in the GHL fishery against the increased value they may gain from delaying harvest until the roe matures. If a relatively large percentage of the pollock ABC were allocated to the GHL fishery and quota holders had to use their federal quota before entering the GHL fishery, the financial incentives to hold quota until the roe matures could be eliminated. The pressure would be more intense if the GHL fishery was a relatively large percentage of the ABC and the fishery attracted new participants that did not hold quota. In that case the value of pollock that could have been harvested in the GHL may outweigh the increased value derived from higher roe prices.

Providing harvesters the ability to choose to when to fish could be a benefit of holding quota, even if the allocation is reduced by a GHL fishery. When pollock and Pacific cod are aggregated, the costs to harvest those fish may be reduced. Holding quota could provide the opportunity to target fish when the value is highest and costs of harvest are reduced. Again, the ability to use quota to harvest when fish are aggregated will depend on pressures to enter the GHL fishery and the catch accounting system.

Finally, if quota is allocated for the Western Gulf and the quota is harvested through a cooperative structure, it may result in a system where vessels within the cooperative work together and can also plan their fishing in state waters. If there is limited effort in the GHL fisheries, the cooperative may act as the mechanism that allows members to develop and enforce rules for participation in related fisheries. For example, if a single cooperative or two cooperatives (based on vessel length) formed, they may be able to decide when fishing by member vessels would occur. The allocation of some amount of quota that causes this cooperation could be beneficial.

4.2.4.4 Who May be Attracted to GHL Fishery

Another question to consider, given that in 2012 all the participants in the State water pollock fishery in the Western Gulf also held an FFP, is who would be attracted to the GHL fishery when it opens. If we assume that those persons that held an FFP would be allocated quota based on those harvests[28], the pool of potential participants seems to fall into two general classes:

- Persons that have access to capital, knowledge of the fisheries, and would not have to give up other federal permits on the vessel they enter in the fishery.
- Persons that could afford 100 percent observer coverage or other increased monitoring standards.
- Persons that have vessels that could be equipped with trawl gear that have traditionally participated in State waters fisheries for salmon or herring.

The first group could include persons that are owners of vessels already fishing in the North Pacific trawl fisheries. These persons could purchase a vessel that would be allowed to harvest pollock in the GHL

[28] An option could be considered that would allow the owners of those vessels to opt out of the federal program if they felt the costs to participate in that program outweighed the benefits. Allowing that decision could impact the size of the GHL the State would consider appropriate.

fishery. Given capacity reduction in other fisheries, it may be possible to obtain a vessel at a cost that would allow profitable participation in the GHL fishery. The vessel owner would only need to obtain the appropriate State permits which are not cost prohibitive.

4.2.4.5 Conclusion

The amount of pollock ABC that is necessary in the Federal quota program is dependent on the structure of the quota program, the catch accounting structure, and the pool of vessels that could enter the GHL fishery. Discussions above show that changing any of these factors will likely change the percentage of ABC that would entice stakeholders to support the program. Given the wide variety of programs being considered and the uncertainty regarding the catch accounting system that the State and federal governments will implement, determining the percentage of pollock ABC that stakeholders would consider necessary in the Federal fishery is not estimated. However, it may be logical to link the size of the GHL with the percentage of the ABC that persons were not given catch history credit for in the Federal program. Alternatively, if the catch accounting system developed does not deduct a federal quota holder's catch off their quota holdings, it may make sense for the GHL to include these historic harvests when calculating the percentage of ABC allocated to that program.

5 Community Fishing Associations

The Council requested additional information on its role in developing the structure of a community fishing association (CFA). Answering that question is difficult because a CFA may take on different forms, and the structure of the CFA ultimately determines what is required of the Council. Further complicating identifying all aspects of the Council's role is that CFA are not defined in the MSA and the Secretary has not implemented specific CFA regulations to date. However, in an attempt to discuss the Council's role in the CFA process, three different examples will be presented. The first example is the CFA structure developed by the Pacific Fishery Management Council as part of its Amendment 20. The second example is the New England scallop fishery where that Council considered the development of a CFA that was closely based on the Regional Fishing Association structure. The third example is loosely based on the CFA proposal that the Council is considering at this meeting. That structure is more closely based on the Fishing Community structure that is defined in the MSA, and allows quota to be allocated to the CFA.

The term "fishing community" as defined in the MSA means a community which is substantially dependent on or substantially engaged in the harvest or processing of fishery resources to meet social and economic needs, and includes fishing vessel owners, operators, and crew and United States fish processors that are based in such a community. This definition has been interpreted to be either place based or person based, meaning that a Fishing Community can be defined by a geographic area or a distinct group of people that are dependent on a fishery.

5.1 Pacific Council's CFA Structure

The Pacific Fishery Management Council (PFMC) considered various structures to provide community protections in Amendment 20. After considering the structures defined in the MSA for Fishing Communities and Regional Fishing Associations, the PFMC determined that neither of those structures sufficiently addressed its concerns. The PFMC then considered an alternative CFA structure that is not explicitly defined in the MSA. This paper does not identify all the reasons that the PFMC discussed in rejecting the MSA structures and considering a CFA structure. However, one of the reasons was the MSA requirement that the Secretary **shall** deny or revoke limited access privileges for any person who

fails to comply with the requirements of the community sustainability plan. For a Fishing Community, the MSA language is found at 303A(c)(3)(A)(ii).

> *(ii) FAILURE TO COMPLY WITH PLAN.—The Secretary shall deny or revoke limited access privileges granted under this section for any person who fails to comply with the requirements of the community sustainability plan. Any limited access privileges denied or revoked under this section may be reallocated to other eligible members of the fishing community.*

For a Regional Fishing Association, similar language is found at 303A(c)(4)(B).

This structure could require substantial oversight by NMFS and the Council to ensure that each person complies with the approved plan. To avoid the need for this level of oversight, the PFMC defined two elements in Amendment 20 that could help protect communities without falling under the MSA definitions. The first element defined who may hold limited entry trawl permits that qualify the owner to be allocated and hold quota. Requirements are that the person must be a legal entity (has a tax identification number) and meets the 75 percent U.S. ownership requirement as applied to fishing vessels ownership. No exemptions were given to CFAs that would allow them to exceed the ownership caps implemented for other entities. These eligibility requirements to hold quota have allowed persons that are not traditional participants in the fishery to gain access to quota. The Nature Conservancy, for example has purchased 13 limited entry trawl permits and holds the associated quota. This would not have been allowed if permits could only be held by persons with a defined amount of time at-sea in the fishery.

When the PFMC was developing Amendment 20 its staff developed a discussion paper to outline the CFA issues titled "Why Define CFAs"[29]. That paper addressed several issues regarding the structure of their CFA program, including six decision points for the PFMC to consider in its deliberations.

1. What are the Goals & Objectives for giving special privileges to CFAs?
    a. CFAs should benefit communities (i.e., prevent, minimize or mitigate adverse impacts on fishing communities and promote community stability)
    b. CFAs and the Adaptive Management Program (AMP) could work together since a CFA is an entity that could be distributed AMP quota.
2. Must be a "legal entity" (U.S. citizen or state/federal legal entity). CFAs could be modeled on MSA "Fishing Communities." CFAs could be modeled on MSA "Regional Fishing Associations." CFAs could be defined in some other way.
3. CFA Qualifications included meeting a geographic designation, membership requirements, operational standards, community support, and a community sustainability plan.
4. CFAs and community support.
    a. Should CFAs be required to demonstrate support from local governments?
    b. Should CFAs be required to demonstrate support from industry participants in the community?
5. CFA membership should be defined and the rules for discriminating between members and non-members addressed.
6. An adequate plan should include goals and objectives, a means to achieve the goals and objectives, and performance measures

[29] http://www.pcouncil.org/bb/2009/0409/F4a_SUP_ATT7_0409.pdf

These are not the only issues that could be considered when developing a CFA. Additional issues are discussed as other papers defining CFAs are presented.

A second step in providing protections for entities that are not part of the initial allocation is the initial stages of the Adaptive Management Program (AMP). The PFMC's proposed that CFAs and the AMP work together. The AMP has been defined in Federal regulation and it reserves 10 percent of the non-whiting QS pool to facilitate adaptive management in the shoreside non-whiting sector. Annually, 10 percent of the shoreside trawl sector non-whiting quota pounds will be available for use in adaptive management. The set aside will be used to address the following objectives:

- Community stability
- Processor stability
- Conservation
- Unintended/Unforeseen consequences of IFQ management.
- Facilitating new entrants.

During the first two years in which the program is in place, the 10 percent set-aside is allocated to QS holders in proportion to their QS holdings. Also during the first two years of the program, the method used to distribute adaptive management quota in years three through five will be determined. This process includes the decision making and organization structure to be used in distributing the adaptive management quota set aside[30]; the formula for determining community and processor eligibility, as well as methods for allocation, that is consistent with additional goals; the division of quota among the states; and whether to allow the multi-year commitment of quota to a particular project. These decisions have yet to be made. It is the authors' understanding that the PFMC will consider these issues at its PFMC's October 2013 meeting. Decisions must be made for the third year of the program (2014 fishing year) or the quota will continue to be proportionally divided among all QS holders.

During years three through five of the program, quota may be distributed through the organizational structure, decision process, and formulas and criteria developed in years one and two, then implemented through subsequent Council recommendation and NMFS rule making processes. Consideration will be given to the multi-year commitment of quota to particular projects (three year commitments).

The set aside of adaptive management quota for the identified objectives will be reviewed as part of the year five comprehensive review and a range of sunset dates will be considered, including 10, 15, 20 year and no sunset date options.

5.2 New England Fishery Management Council (Amendment 15)

The New England Fishery Management Council (NEFMC) considered the development of a separate RFA or CFA program with provisions that could be included in the Limited Access General Category (LAGC) Scallop Fishery. Its concern was that larger entities will buy out smaller boat permits, stack IFQ, and effectively reduce the number of vessels in ports and number of participants in the general category scallop fishery, and the impact this would have on fishing communities throughout New England. Under the CFA, Community Fishing Organizations would be created that would be permitted to acquire quota for distribution throughout the geographic community it represents.

[30] The following are three options for the sequences of agency involvement in decision making for the distribution of adaptive management QP after year 2 (1) NMFS; (2) State → Council →NMFS; (3) Council →NMFS

The NEFMC definition of a CFA is a partnership, voluntary association, or other non-profit entity established under the laws of the U.S. that is eligible to hold quota (and possibly permits) and distribute said quota/permits to permitted fishermen within the geographic community that the CFA represents.

These entities will be beholden to the eligibility requirements and participation criteria governing RFAs as outlined in the MSA. The goals of establishing Community Fishing Associations are to:

1. Mitigate the potentially negative economic and social impacts of current transitions to quota management in the Limited Access General Category (LAGC) Scallop Fishery;
2. Provide affordable local industry access to fisheries resources;
3. Provide opportunities for qualified new entrants to the fishery;
4. Preserve traditional fishing communities and necessary onshore infrastructure.

5.2.1 Qualification as a CFA

To be recognized as a LAGC CFA, an entity must:

1. Meet the geographic designation and membership requirements.
2. Have the expressed support of local governing entities (county, city or port district).
3. Meet the organizational standards.
4. Develop an adequate community sustainability plan (MSA 303A(c)(3)(i)(IV)).
5. Be organized and maintained as a non-profit corporation under U.S. law.

5.2.2 CFA Decision Points

5.2.2.1 What CFAs Can Own and Lease

The NEFMC considered allowing the CFA to only purchase IFQ which they could lease to qualifying fishermen already possessing a LAGC permit. A second option was to allow CFAs to purchase IFQ and permits which can then be leased to any qualifying fishermen within the community.

5.2.2.2 Geographic Designations and Community Affiliations

CFAs must be located within the management area of the Council (Based on MSA 303A(c)(3). The geographic areas served by a CFA may overlap with the area served by another. However, a CFA may only represent one 'community' (i.e., a single management company may not administer multiple CFAs).

For the purposes of this program, a 'community' is defined here as either a single coastal town or small number of coastal towns that are geographically and economically interconnected. Prior to approval, a CFA must demonstrate substantial support of community members and governing jurisdictions in the area it seeks to represent

5.2.2.3 Participation Requirements

Participation (holding of quota, leasing of quota and harvest) in a CFA is voluntary and is restricted only to community residents who have interest in commercial fishing operations. The definition of interest in commercial fishing operation could be broadly or narrowly defined.

5.2.2.4 Organization and Operational Standards

CFAs will establish open and transparent application and qualification criteria for the distribution of permits/quota to community fishermen. These entities will comply with existing and relevant leasing and transfer regulations that currently apply to individual permit-holders including lease reporting protocols, size-class or baseline restrictions, etc.

5.2.2.5 Community Sustainability Plan

The CFA shall develop a community sustainability plan consistent with required sections of MSA (MSA 303A(c)(3)(i)(IV) that includes the following:

1. Specification of the organization's goals and objectives and the means by which it intends to meet those goals and objectives.
2. Description of how the CFA will contribute to the social development, economic development, and conservation needs of the fishery locally, including the needs of entry level and small vessel owner-operators, captains, and crew. The description shall include anticipated efforts to address the following as necessary to maintain the characteristic of the community or support its economic development:
   a. sustaining effort by groundfish fisheries;
   b. maintaining crew, processing and seasonal employment opportunities;
   c. maintaining local processing activity;
   d. meeting local community and municipality needs; and
   e. investing in local infrastructure.

5.2.2.6 Measure to Allow New Entrants

CFAs could allocate a portion of the IFQ holdings to be leased to new entrants to the fishery within the community. The percentage of the set-aside for new entrants could include a maximum amount. The idea in the scallop fishery was to encourage entry of individuals who have harvesting experience in the local fishery and who wish to start an independent fishing operation in that community, thus ensuring the future of the community fleet.

5.2.2.7 Restrictions on Holding Quota

Much concern in the early stages of CFA research was that quota will be improperly obtained or used in ways that are a detriment to the LAGC fishery and/or the same community it is designed to help, e.g. obtaining IFQ with the intent that it not be harvested. For this reason a stringent application process and monitoring plan was considered to ensure the CFA benefits the community as intended and the harvest of OY is not impaired.

5.2.2.8 Application for Status as a CFA

The process to determine who is eligible to be part of the CFA program is fundamental to the program's success. CFA applications were discussed in terms of including:

1. Articles of incorporation and bylaws.
2. Organization chart and explanation of management structure.
3. A community sustainability plan (see above; MSA 303A(c)(3)(i)(IV)).
4. All information needed for NMFS to assess compliance with control limits.

5. Operating procedures including descriptions of the roles and responsibilities of the association, board members, staff, and contractors, the process and criteria by which permits/quota will be distributed, and dispute resolution processes. Part of the dispute resolution process must include a Federal appeals process.
6. Documentation that shows compliance with all other CFA eligibility requirements that are required by the Council/NMFS.

5.2.2.9 Criteria for Evaluating Applications and Approval Process

CFAs will be approved provided that a complete application has been provided to the Council and the National Marine Fisheries Service by agreed upon deadlines. The Council will ensure that all requirements listed above are fully and satisfactorily met prior to approval, including those pertaining to geographic representation and community support. Approval will include specification of special responsibilities and considerations being afforded the CFA (e.g. the level of quota shares control that will be afforded the CFA).

5.2.2.10 General Participation and Special Considerations

CFAs will participate in common with all other participants in the IFQ program and have the same rights and responsibilities, except with respect to special responsibilities and considerations provided for by the Council and through NMFS regulations. General participation includes leasing quota under provisions identical to those which apply to all other participants in the LAGC fishery.

5.2.2.11 Special Consideration – Accumulation Limits

CFAs would be obligated to remain within existing and relevant accumulation limits unless the Council decided to explicitly amend such limits in a future action. Currently, an individual permit holder may own up to 5 percent of the total LAGC IFQ allocation, and a sector can hold up to 20 percent. The ownership limit under consideration by the PFMC for a CFA is 10 percent. This accumulation limit recognizes that, to be effective, a CFA must be able to accumulate sufficient fisheries access to support more than a single fishing operation within the community, while maintaining a relatively low cap.

5.2.2.12 Special Responsibility – Reporting Requirements

CFAs would be required to report annually on specific aspects of their operations, CFA performance measures, etc. Specifically, each entity will be required to report the number of lease applications received for their permits/quota; the number, names, and characteristics of the financially independent fishing operations that leased the CFAs permits/quota; the proportion of permits/quota leased in a given year relative to the entity's total holdings; and a summary of how holdings were distributed among applicants. This will help to confirm that the quota is remaining within the community as intended.

5.2.2.13 Monitoring of CFAs

The Council noted the need to adequately monitor the use of CFA IFQ.

5.2.2.14 Movement between CFAs if more than one CFA is formed

As multiple CFAs may simultaneously support a given community, a fisherman may lease quota from more than one CFA during a given fishing year. Each permit-holder will remain bound by the existing individual harvesting and ownership caps. The relationship between a CFA and a participating fisherman who leases a permit and/or quota is terminated with the harvest of the leased pounds; from the perspective

of the Council and NMFS, there is no membership or expectation of continuing connection between these two independent entities (CFA and the individual).

5.2.2.15 Program Evaluation

The CFA program developed by the NEFMC would be reviewed 2 years after implementation to ensure progress in achieving the stated programmatic objectives and to make any small revisions required. Thereafter, this program would be reviewed as necessary by the Council and/or NMFS.

5.2.2.16 Organizational Evaluation

Performance of individual CFAs would be fully reviewed after 2 years of operation. Performance will be measured based on the ability of the CFA to support the objectives of the program and to help meet the needs of the fishing community. This review will result in the continued approval, conditional approval (with specific operational changes to be made), or the disapproval of the CFA by the Council and/or NMFS. After this initial review, each program will undergo a full review every 5 years or more frequently if deemed necessary by the Council and/or NMFS

5.3 Pacific Coast Federation of Fishermen's Associations

Pacific Coast Federation of Fishermen's Associations (PCFFA) developed a paper on CFAs[31]. That paper also summarized some potential decision points associated with the development of CFAs. The authors note that many questions remain concerning community fishing associations, but this has not stopped "proto-community fishing associations" from springing up throughout the country. The formation of these "proto-associations," which are quite different throughout the country, has been driven by the same forces and seeks to achieve the same basic goals. Those goals are to provide stability for communities when fisheries are managed under a LAPP. That paper notes some of the issues that must be addressed in structuring a community fishing association. The issues identified in that paper are presented here.

5.3.1.1 Defining the Community

A CFA must define its structure. This statement defines who the members are, including its Board of Directors and Executive Committee and Executive staff. The statement should define who is eligible for membership, as well as how a member can join or leave the CFA. How the structure is developed for defining community will be important in preventing the CFA from becoming the spokesman for another large entity.

5.3.1.2 Purposes of the Organization

The rules for the CFA will need to state the CFA's purpose. The purpose could simply be to hold quota on behalf of its members. Or it could be much broader, including filling a number fishing needs such as marketing, purchasing cooperatives, or establishing other programs for members.

5.3.1.3 Financial Structure

Required rules should include a detailed financial statement from a CFA when it organizes, and periodically thereafter. It is conceivable that some fishing community organizations might want to be organized as for-profit entities, such as cooperatives, while others may choose to organize as a non-profit type of organization. The statement of the initial financial structure should include the nature of its assets, including whether or not it will hold quota in its own name (as opposed to simply being a loose

[31] http://www.pcffa.org/fn-mar09.htm

association of quota holders), or whether it will acquire quota. It should also include what other assets it owns or leases, together with a plan for annual financial disclosure to the regional fishery council or even NMFS, as well as to its members.

5.3.1.4 Rights of the Organization

A rule or standard will be required to state what inherent rights a CFA would have, including the amount of quota share it would be allowed to hold or control, and what authorities it would be delegated by the regional council and NMFS.

5.3.1.5 Rights of Members

The CFA must define in detail the rights of members along with an appeals mechanism for members (as well as non-member fishermen or processors) who believe they have been aggrieved by the CFA. That appeals process must include the rights for the member to have their grievance heard through the federal process. The rights section should also state how members are entitled to use quota held by the community. If quota is held only by individuals within that community, it would specify how that quota would transfer within the community when an individual member sells their quota to the CFA.

5.3.1.6 Transparency and Oversight

A CFA would be either holding or acquiring quota of public trust resources. Rules would have to be established requiring transparency within the organization as well as for oversight by the regional council.

5.3.1.7 Relationship to the Regional Fishery Council

Rules would be needed outlining the relationship of a CFA to the regional fishery management Council, including oversight, appeals, approval of a CFA by the Council, allocation, where applicable the how quota is allocated to and held by the organization, methods and standards for revoking of privileges, or even rules for dissolution of the CFA by a regional council.

5.3.1.8 Anti-Trust

Finally, a rule would need to establish that the actions of a CFA do not violate any state or federal anti-trust statutes, particularly where an organization may hold a substantial portion of the quota in a fishery, or where it might have control over most or all of the fisheries in a port. This might also require changes in state anti-trust laws.

5.4 Current Proposal to the NPFMC

The current structure of the proposal to the Council (Proposal #2) has been discussed in general terms in Section 3.2 and the Appendix; it is not reiterated in this section. However, it is important to note that many of the issues that were defined in the other regions apply to this proposal. That proposal addresses some of the issues (e.g., defines community) but not all of the issues addressed by the other papers (e.g., rights of members).

It is also important to note that while many of the other proposals were structured based on the MSA RFA concept, the proposal to the Council is more closely based on the Fishing Community structure defined in the MSA – in particular, the aspect of the MSA that allows a direct allocation of quota to a Fishing Community, where it prohibits direct allocation to an RFA.

5.5 Conclusions

The current conceptions of CFA structures vary by region and fishery. There is currently limited direction on the structure of a CFA from NOAA. The primary guidance is dependent upon whether the CFA is patterned after the MSA definition of a Fishing Community or a Regional Fishing Association.

Until the Council defines the type of CFA it is considering, it is difficult to determine all of the issues that must be addressed. The number of issues and the complexity of those issues may be fewer if the Council defines a CFA that is structured more like the PFMC developed under Amendment 20. In that case a CFA is treated like other entities in terms of purchasing quota and other entities that qualify to be issued annual quota under an adaptive management style program. Some issues associated with the adaptive management program are still under development, and it is yet to be determined if quota will be issued to non-quota share holders (i.e. CFAs) after the second year of that program. However, it is not the intent of the authors to assume that because a program has fewer issues to address that it better meets the Council's goals and objectives.

The structure proposed by AMCC, et al. (Proposal #2) is unique and will likely require more issues to be addressed. These issues are both legal and regulatory in nature. Legal issues are associated with defining what authority may be granted the CFA, and what authority must be maintained by the Council/NMFS/Secretary. This includes rules for how quota can be distributed (especially the 40 percent that is subject to discretionary measures that could be determined by the CFA), and the appeals process that must be developed for persons who have a grievance. Regulatory issues include how catch accounting will interact with the CFA and how the RAM division will issue IFQ and quota shares. This is particularly important if the MSA language found at 303A(c)(3)(A)(ii) or 303A(c)(4)(B) is applied and the Secretary must determine whether each person complies with the plan submitted by the CFA.

6 Preparers and Persons Consulted

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8 Appendix

Proposal Submitted By:	Americans for Equal Access	AMCC/GOAC3/ AEB/others	AGDB/AWTA/ PSPA/Others	Groundfish Forum	Pacific Seafoods	Peninsula Fishermen's Coalition	Plesha/Riley	United Catcher Boats
Proposal #	#1	#2	#3	#4	#5	#6	#7	#8
				Tier 1 Issues				
Species allocated	Either (1) PSC and MRA; or (2) TAC, PSC and MRA	Primary, secondary, and PSC	Primary (pollock and Pcod with options for rex sole and deep water flatfish), secondary (skates and sablefish), PSC (Chinook and halibut)	POP, Northern Rockfish, and Dusky Rockfish	See #3	Pollock and Pacific cod	Pollock, cod, AND flatfish (but flatfish won't be *fully* allocated until the TAC is fully utilized or 2020, whichever first)	Pollock, Pacific cod, and PSC
To whom is the QS allocation made	No QS is allocated, only annual IFQ… NMFS 'owns' all the quota (like Rockfish Program)	CFA	LLP holders	See #3	Allow allocation of harvest shares to processors (1-pie)	Vessel owners (A-shares <60'; B-shares ≥60'), Skippers (S-shares). *Note the prohibition of allocating QS to vessels owned by CDQ groups was removed.*	Various methods discussed (harvesters, processors, communities)… NOT crew or processing labor	1) to vessel owners; or 2) to the CV ≥60' WGOA sector
How is the allocation amount determined	Annual IFQ distributed either (1) evenly among all vessels; or (2) by vessel capacity… Also wants allocation made at the "fishery" level (target and season)	100% allocation to Gulf wide CFA	Fishing history: 2010-2012; 2008-2012; 2003-2012; 1998-2004	See #3	See #3	Fishing history: Vessels 2000-2012 (drop 0, 1, 2, or 3 years); Skippers 2008-2012	Catch history, investment, auctions	See #6 (no skipper shares)
Annual allocation type	IFQ/IBQ to vessel owners	IFQ distributed by CFA	CQ to Cooperative or IFQ to LLP owner	See #3	See #3	IFQ (A, B, and S shares	IFQ or Cooperative shares (co-ops are necessary because "the government cannot reward industry on a timely basis for avoidance of bycatch")	To cooperative based on member CV's history (catch share option only)
Areas included in allocation	GOA	WGOA and CGOA	Varies by species	WGOA	See #3	WGOA	Central GOA	WGOA
Duration of program	Not defined	10-year review (MSA)*	10-year review (MSA)*	See #3	See #3	10-year review (MSA)*		10-year review (MSA)*
Transferability	Potentially allow leasing of annual IFQ within co-ops (voluntary co-op decision, hardship conditions)	N/A	LLP holders take their quota into the cooperative they join. The proposal does not define mechanisms for inter-cooperative transfers	Allow post-harvest transfers of quota	See #3	A-shares only to < 60' vessels; B-shares to any size vessel; S-shares held by skippers	Discussed in context of movement cooperatives… need disincentive for consolidation (proposes "tax" on transfers and leases that gives a % (~10%) to community of Kodiak)	Permanent ransfers within >60' WGOA CV sector; annual quota transfer within co-op; annual quota trans. also permitted between sectors

Proposal Submitted By:	Americans for Equal Access	AMCC/GOAC3/ AEB/others	AGDB/AWTA/ PSPA/Others	Groundfish Forum	Pacific Seafoods	Peninsula Fishermen's Coalition	Plesha/Riley	United Catcher Boats
Proposal #	#1	#2	#3	#4	#5	#6	#7	#8
				Tier 1 Issues				
Species allocated	Either (1) PSC and MRA; or (2) TAC, PSC and MRA	Primary, secondary, and PSC	Primary (pollock and Pcod with options for rex sole and deep water flatfish), secondary (skates and sablefish), PSC (Chinook and halibut)	POP, Northern Rockfish, and Dusky Rockfish	See #3	Pollock and Pacific cod	Pollock, cod, AND flatfish (but flatfish won't be *fully* allocated until the TAC is fully utilized or 2020, whichever first)	Pollock, Pacific cod, and PSC
To whom is the QS allocation made	No QS is allocated, only annual IFQ… NMFS 'owns' all the quota (like Rockfish Program)	CFA	LLP holders	See #3	Allow allocation of harvest shares to processors (1-pie)	Vessel owners (A-shares <60'; B-shares ≥60'), Skippers (S-shares). *Note the prohibition of allocating QS to vessels owned by CDQ groups was removed.*	Various methods discussed (harvesters, processors, communities)… NOT crew or processing labor	1) to vessel owners; or 2) to the CV ≥60' WGOA sector
How is the allocation amount determined	Annual IFQ distributed either (1) evenly among all vessels; or (2) by vessel capacity… Also wants allocation made at the "fishery" level (target and season)	100% allocation to Gulf wide CFA	Fishing history: 2010-2012; 2008-2012; 2003-2012; 1998-2004	See #3	See #3	Fishing history: Vessels 2000-2012 (drop 0, 1, 2, or 3 years); Skippers 2008-2012	Catch history, investment, auctions	See #6 (no skipper shares)
Annual allocation type	IFQ/IBQ to vessel owners	IFQ distributed by CFA	CQ to Cooperative or IFQ to LLP owner	See #3	See #3	IFQ (A, B, and S shares	IFQ or Cooperative shares (co-ops are necessary because "the government cannot reward industry on a timely basis for avoidance of bycatch")	To cooperative based on member CV's history (catch share option only)
Areas included in allocation	GOA	WGOA and CGOA	Varies by species	WGOA	See #3	WGOA	Central GOA	WGOA
Duration of program	Not defined	10-year review (MSA)*	10-year review (MSA)*	See #3	See #3	10-year review (MSA)*		10-year review (MSA)*
Transferability	Potentially allow leasing of annual IFQ within co-ops (voluntary co-op decision, hardship conditions)	N/A	LLP holders take their quota into the cooperative they join. The proposal does not define mechanisms for inter-cooperative transfers	Allow post-harvest transfers of quota	See #3	A-shares only to < 60' vessels; B-shares to any size vessel; S-shares held by skippers	Discussed in context of movement cooperatives… need disincentive for consolidation (proposes "tax" on transfers and leases that gives a % (~10%) to community of Kodiak)	Permanent ransfers within >60' WGOA CV sector; annual quota transfer within co-op; annual quota trans. also permitted between sectors

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Proposal #	#1	#2	#3	#4	#5	#6	#7	#8
				Other Issues				
Processor	Processors are prohibited from holding IBQ; but processor owned vessels could hold IBQ; envisions that co-ops will form around processors, but there is no binding 'processor affiliation'	Member of cooperative with associated harvesters (AFA style)	member of cooperative with associated harvesters (AFA style); 20% to 30% use caps with grandfather provision		Allocation of harvest shares to processors as a method to protect their investment in the fisheries	Caps 30% or 40% with grandfather provision	Allocation of harvest shares to processors as a method to protect their investment in the fisheries… more deserving, even, than vessels, since processor capital is less malleable	See #6
QS Ownership Caps	N/A	N/A	Analysis should explore various mechanisms			pollock (5%, 8%, or 10%) Pacific cod trawl (2% or 8%)		20%, 25%, or 30%
IFQ Use Caps	Not Discussed		Analysis should explore various mechanisms					30%, 40%, or 50%
Incentive Programs	PSC/MRA is banked - rolls over to next season/year's allocation. Other undefined performance rewards could be included	CFA would determine the incentive programs					Financial Incentive Program style of allocating pollock quota ("Chinook Avoidance Quota," CAQ)	Individual bycatch incentives within co-ops
Penalties	Hard IBQ cap requires a person to stop fishing	Imposed by CFA through allocation					One of 3 potential harvester-processor co-op linkage strategies involves a "leave behind" if harvester switches to another processor's co-op	
Observer Coverage	Not written down, but assumes 100% is necessary	Assume 100%	100%	Assume 100%	Assume 100%			

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PSC Reduction Components	Rolling over unused PSC. PSC bonuses for clean fishing.		Creates cooperative working relationships to share information, eliminates racing for harvest, flatfish not allocated to create incentives to better utilize PSC.				CHINOOK: Focus only on pollock fishery (3/4ths of Chinook bycatch), allocate ~10-20% of annual pollock quota contingent upon relative salmon avoidance performance --> people will spend money to avoid Chinook… likens it to Bering Sea FIP proposal (2009); HALIBUT: vessel-level total bycatch allocations (IBQ?)	Pre-season and in-season hotspot closures, built-in allocation buffers, and PSC/bycatch pools.
Retention	Full retention of PSC and MRA; Eliminate PSC and MRA discard requirements							
Goals and objectives	Create a bank of PSC and MRA quota that rewards clean fishermen, makes each fish count, and creates individual accountability. The goal is to better utilize available PSC. The key idea is not to allocate QS -- to keep the fisheries "owned" by the public/government, to reduce likelihood of consolidation, and essentially require active participation and make it easier for new entrants; Allocating annual IFQ/IBQ should give people the right incentives, and doing it within a co-op structure should help with utilization;	Provide community protections by giving a new entity, composed of community representatives, control over how quota is allocated after the second year of the program.	Create a comprehensive management program that introduces incentives for harvesters and processors to work together to better utilize bycatch and reduce/control PSC. The program should not impose excessive costs on any sector and meet conservation and community goals.				Protect the [sunk cost] investments of processors; allocate only as much quota to private entities as necessary to compensate for losses due to overcapitalization; funnel some amount of QS to community of Kodiak	

Note: Plesha and Riley paper is presented as an article and not a list of elements and options.
* Not included in program submitted to the Council, but required under the MSA